Fr. Luis de Lossada, S.J.

Philosophical Course of Salamanca 3

According to the Mind of the Eximius Doctor

Translated by Osvaldo R.

PHILOSOPHICAL COURSE OF SALAMANCA

FR. LUIS DE LOSSADA, S.J.

PHILOSOPHICAL COURSE OF SALAMANCA

ACCORDING TO THE MIND OF THE EXIMIUS
DOCTOR FRANCISCO SUÁREZ, S.J.

TOME III.

I. ON NATURAL PHYSICS (CONTINUED). II. ON GENERATION & CORRUPTION. III. ON THE WORLD. IV. ON THE SOUL.

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This rendering into English of the work of the Reverend Father Luis de Lossada, S.J., is offered freely and without recompense, for the edification of students and the greater flourishing of the School of the Eximious Doctor, Francisco Suárez, from whose ocean of wisdom this most faithful disciple drew, and whose streams he caused to flow anew through the fields of his own age; he who, though ever reputed a true son of the Angelic Doctor, refuted the Thomists themselves by the authority of St. Thomas; that the light kindled by such great masters may not fail among us, but spread, multiply, and abide.

To the Eximious Doctor Francisco Suárez
and to St. Thomas Aquinas.

August 15, 2026.

Osvaldo A. R. | Sol 5.6
Translator.

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TO THE VENERABLE FRANCISCO SUÁREZ AND
THE FLOURISHING OF HIS SCHOOL

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IHS
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Secretary.

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Summary of the Price Assessment

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Madrid on 19 February 1724.

Table of Contents.

On Physics or Natural Philosophy

Disputation VII.	On the Connection of Causes with the Possibility of Their Effects.	9
Chapter I.	The First Cause Is Metaphysically Connected with the Possibility of Creatures.	12
Chapter II.	The Contrary Arguments Are Resolved.	23
Chapter III.	The Disputation Is Concluded with Other Assertions.	40
Disputation VIII.	On the First Cause, Insofar as It Concurs with Second Causes Toward Their Effects.	45
Chapter I.	God Immediately Concurs with All Effects of Creatures.	48
Chapter II.	The Action of a Secondary Cause and of the First Cause Concurring with It Is the Same.	52
Chapter III.	On God's Simultaneous Concurrence with the Free Acts of a Creature, Especially Sinful Acts.	61
Chapter IV.	Opposing Difficulties Are Resolved.	88
Chapter V.	Whether There Is a Previous Concurrence of God Physically Predetermining Secondary Causes to Act.	113

Chapter VI.	The Contrary Arguments Are Solved, and It Is Proved That St. Thomas Stands with Us.	128
Treatise III.	On the Remaining Six Books of the Physics.	147
Disputation I.	On Motion, Action, and Passion.	147
Chapter I.	On Motion.	147
Chapter II.	On Action and Passion.	152
Chapter III.	On Creation.	163
Disputation II.	On Place and Time.	174
Chapter I.	On Real and Imaginary Place, Where the Vacuum Is Also Discussed.	174
Chapter II.	Whether Bilocation of the Same Body Is Possible.	187
Chapter III.	What Is Time?	202
Chapter IV.	Whether Created Duration Is Distinguished from the Existence of the Thing and from Flowing Time.	206
Chapter V.	Whether a Creature Could Have Existed from Eternity.	216
Disputation III.	On the Infinite.	220
Chapter I.	What the Infinite Is; and Whether a Most Perfect Creature Is Repugnant.	220
Chapter II.	Whether the Infinite in Act Is Repugnant.	226
Chapter III.	The Arguments for the Contrary Opinion Are Solved.	231
Disputation IV.	On the Composition of the Continuum.	237
Chapter I.	Aristotle's Opinion Is Proposed, and It Is Shown How Difficult It Is.	239
Chapter II.	Zeno's Opinion Is Proposed, and Its Difficulty Is Explained.	244
Chapter III.	Some Solution of the Difficulties Objected Against Zeno's Opinion.	248
Chapter IV.	What Opinion Seems More Tenable.	254
Treatise.	On Generation and Corruption.	258

Disputation I.	On Generation and Augmentation.	259
Chapter I.	Substantial Generation in General Is Explained.	259
Chapter II.	On the Generation of Living Things.	264
Chapter III.	On Augmentation, Including the Nutrition of Living Things.	274
Chapter IV.	On Rarity and Density.	287
§ 1.	First and Second Opinions.	289
§ 2.	Third Opinion.	292
§ 3.	Fourth Opinion.	295
§ 4.	What Seems More Probable? With Something on Elastic Force.	299
Disputation II.	On Corruption.	303
Chapter I.	Corruption Is Defined, and Several Minor Doubts Are Resolved.	303
Chapter II.	Whether a Thing Once Existing Can Cease by an Absolute Defect, or Only by a Relative One.	308
Chapter III.	Whether a Thing Once Corrupted Can Be Reproduced.	320
Chapter IV.	Whether in Substantial Corruption Resolution Occurs All the Way to Prime Matter.	329
Chapter V.	What Is the Subject of the Accidents Existing in a Substantial Composite.	338
Chapter VI.	Whether Quantity Is the Proximate Subject of Corporeal Qualities.	346
Disputation III.	On Alteration.	350
Chapter I.	Having Briefly Explained the Concept of Alteration, the Intension of Quality Is Discussed.	350
§ 1.	Two Opinions Are Rejected.	351
§ 2.	The Opinion of the Thomists and Its Various Explanations Are Attacked.	355
§ 3.	The True Opinion Is Proved and Defended.	358

Chapter II.	Whether the Degrees of Intension Are Homogeneous or Heterogeneous.	367
Chapter III.	The Contrary Arguments Are Examined.	377
Chapter IV.	Various Minor Questions Pertaining Here Are Decided.	387
Chapter V.	On the Resistance and Reaction of Qualities, and Also on the Succession and Continuity of Alteration.	397

Synopsis on the World

Chapter I.	On the World.	412
Chapter II.	On the Heaven.	415
Chapter III.	On the Elements.	429
Chapter IV.	On Mixed Bodies.	449
Chapter V.	On Meteors.	457

On the Doctrine of the Soul

Disputation I.	What Life and Soul Are, and How Many Kinds There Are.	479
Chapter I.	On the Quiddity, or Concept, of Life.	479
Chapter II.	Various Objections Are Solved. How Many Kinds of Living Being and Life There Are.	492
Chapter III.	What the Soul Is, and How Many Kinds There Are.	500
Chapter IV.	The Attempt of Certain Authors Against a True Soul in Brute Animals and Plants Is Repelled.	510
Disputation II.	On the Substance and Information of the Rational Soul.	529
Chapter I.	The Spirituality, Indivisibility, and Immortality of the Rational Soul Are Proved.	529
Chapter II.	Whether, and to What Extent, the Rational Soul Informs the Body.	546
Chapter III.	Whether the Blood Is Animated.	554

Chapter IV.	Whether All Rational Souls Are in Fact Equal in Entitative Perfection.	567
Chapter V.	Whether Inequality of Entitative Perfection Can Exist among Souls of the Same Ultimate Species.	576
Chapter VI.	Whether Equality of Entitative Perfection Can Stand with Specific Distinction of Souls.	584
Chapter VII.	On the Separated Rational Soul.	593
Disputation III.	On the Divisibility of the Material Soul.	603
Chapter I.	The True Opinion Is Chosen and Proved.	604
Chapter II.	Contrary Arguments Are Resolved.	611
Chapter III.	Whether the Parts of a Divisible Soul Are Homogeneous or Heterogeneous?	621
Chapter IV.	Answers to Contrary Arguments.	630
Corollary.	On the Heterogeneity of the Human Union.	641

DISPUTATION VII.
ON THE CONNECTION OF CAUSES WITH THE POSSIBILITY OF THEIR EFFECTS.

This disputation chiefly concerns the First Cause, or the Omnipotence of God, concerning which there is a celebrated controversy: whether it is metaphysically connected with the possibility of creatures. For one thing to be connected with another, as the term is now taken, is for one to be unable to be without the other, whether as possible, future, or existent, according to the kind of connection; and when the inability to be without the other is not merely physical or natural, but also metaphysical or essential, the connection is called metaphysical. It is certain that Omnipotence is not thus connected with creatures as existent; hence it is asked only whether it is thus connected with creatures as possible, or with their possibility. A twofold possibility of creatures is commonly distinguished: one extrinsic, consisting in the Divine power itself, from which they can receive existence and from which, consequently, they are extrinsically denominated possible or producible; the other intrinsic, consisting in the intimate coherence, or non-repugnance, of the predicates of each creature, insofar, namely, as they are such that, if they existed, they would not imply a contradiction. There is no controversy concerning extrinsic possibility, since God not only necessarily requires it but identifies it with Himself; accordingly, the dispute concerns intrinsic possibility alone.

It must nevertheless be noted that intrinsic possibility is not distinguished from the essence of the thing, and therefore neither from its

existence, since existence is not really distinguished from essence, as we shall prove elsewhere. Hence connection with intrinsic possibility is connection with the essence and existence of the thing. But possibility, essence, and existence alike may be taken 1º absolutely and exercitively, insofar, namely, as something is actually posited in reality; and in this way it is taken whenever we use the name "existence" or "existent thing," unless something else is explained; 2º conditionally and signately, or objectively, insofar, namely, as it is the object verifying this conditional affirmation: "If it were produced, it would not imply a contradiction"; and this is the sense expressed by the name "possibility," or "thing as possible," when used without qualification. In the same sense the knowledge of God which they call "knowledge of simple intelligence" is terminated at creatures as possible. Therefore, to be connected with the possibility of man is not to be connected with man's actually being a being or something, but with the fact that, if man were produced, he would be a true being and something non-repugnant, or with the fact that man is such as he is known by God through the knowledge of simple intelligence. Hence, whatever may be said concerning intrinsic possibility, about which there is some dispute in Metaphysics, the present question may, if one wishes, be proposed in these terms: whether Omnipotence is connected with the fact that the knowledge of simple intelligence concerning creatures has such an object as it now has.

Moreover, once the connection is granted, it is legitimately inferred: Omnipotence exists, therefore creatures are possible. And since from the opposite of the consequent the opposite of the antecedent follows, it is also legitimately inferred: creatures are not possible, therefore Omnipotence does not exist; or, what amounts to the same thing, if creatures were not possible, Omnipotence would not exist. Hence in this controversy there is frequent use of an impossible hypothesis, whereby, namely, some hypothesis, that is, a condition or supposition, which in fact is impossible, is feigned so that something may be inferred or affirmed from it; for example: if man became impossible, there is the hypothesis, Omnipotence would fail. The use of such hypotheses in inferential conditionals is exceedingly frequent among authors on every subject; as when it is said: if the soul of man were divisible, it would not be spiritual; if God could deceive, He would not be supremely truthful; if He were the author of sin, He would not be supremely holy; and, as the Latin Doctors argued against the Greeks at the Council of Florence, if the Holy Spirit did not proceed from the Son, He would not be distinguished from Him.

But it must be observed that an impossible hypothesis, if it is to be useful for inferring one contradictory rather than its opposite, must not

formally imply a contradiction in its terms, or "in the adjective," as they say, that is, in a predicate composed of terms which expressly destroy one another. Otherwise it will be useful only for inferring two contradictories simultaneously. Thus, one who said, "If man were rational and irrational, he would not be distinguished from a brute," or, "If man were possible and impossible, he could be produced by God," would imply a contradiction in the adjective, and would vainly infer precisely that man was distinguished from a brute, or precisely that he could be produced by God; for rather each contradictory would follow, namely, that he was distinguished and not distinguished, that he could and could not be produced. And in this sense must be understood the maxim, "From the impossible anything follows," namely, either of two contradictories. The same is true when the subject of the hypothesis is assumed as remaining wholly unchanged, for example, "If man, while remaining man, were not rational"; for this likewise implies a contradiction in the adjective, since it amounts to, "If man remained and did not remain rational." Therefore the predicate of the hypothesis must not be composed of contradictory terms, and its subject must be assumed as prescinding from the predicate which is removed from it in a negative hypothesis, or from the formality directly opposed to the predicate added to it in an affirmative hypothesis. Then, however, one contradictory rather than the other may rightly be inferred, unless the adversary proves that both follow by mediate consequences deduced from the very substance of the controversy.

I add, nevertheless, that when the inference is permissive or disparate, and the consequent is supposed to be unconnected with the subject of the hypothesis, a contradiction in the adjective causes no difficulty. For example, if a lion and a horse are supposed to be entirely unconnected, nothing prevents one from saying: "If a lion were and were not capable of roaring, the horse would truly be capable of neighing"; for the whole contradiction of that hypothesis permits the truth of the conditional, or is disparate from it. Hence defenders of the non-connection of Omnipotence with possibles and chimeras must not, on the ground of contradiction in the adjective, refuse any hypothesis under which it is inferred or affirmed that Omnipotence remains unchanged.

CHAPTER I.
The First Cause Is Metaphysically Connected with the Possibility of Creatures.

1. Thus, with Fr. Suárez, teaches the more common opinion of our authors, whom Fr. Peynado cites and follows (here disp. 3, n. 8), and all the Thomists according to Prado (here q. 21, n. 20), against the Scotists commonly and several of our own authors with Fr. Vázquez (in I, p. d. 104, c. 6). Their position is that God from His intrinsic attributes does not imply the possibility of creatures, nor exclude their impossibility, but is of Himself indifferent to an event in which creatures now possible should become impossible, and those which are now chimeras should become possible; because of Himself He has only a most complete power to produce whatever shall not be repugnant, while whether these or those objects are repugnant or not is of no concern to Him, that is, He neither implies nor prevents it. But against this doctrine:

2. The assertion is proved 1º. There belongs to God a most perfect Omnipotence, or one than which no more perfect can be conceived. But an Omnipotence metaphysically connected with possibles is more perfect than one unconnected with them. Therefore, etc. Proof of the minor premise: connected Omnipotence intrinsically carries with itself whatever is necessary in order that it can absolutely act whenever it wills, and intrinsically excludes every impediment to acting that does not proceed from its own free will. But unconnected Omnipotence is not so, since it neither intrinsically implies the possibility of an effect, which is absolutely necessary for acting, nor intrinsically excludes the impossibility of an effect, which, if given, would be an impediment to acting wholly independent of the free will of God. But it is a greater perfection in a power that it intrinsically carry or imply whatever is necessary for acting, and exclude whatever could obstruct it, than that it neither thus imply nor exclude these things. Therefore, etc. The rest is evident, and the minor premise seems known from the terms themselves. For who would doubt that a power is greater and more excellent insofar as it more fully has its operation subject to its own command and is less liable to impediments, especially if it essentially excludes every obstacle?

3. The argument is pressed 1º. A power which of itself neither resists nor is repugnant to an event in which, independently of its own freedom, it would be wholly impeded and, as it were, bound in chains from acting, is less

perfect than a power which essentially resists such an event. But unconnected Omnipotence is related in this manner when compared with connected Omnipotence, since it is not repugnant to an event in which all creatures should from elsewhere become impossible, in which event it would be wholly impeded from acting, much more firmly and inescapably than a man bound with iron chains is impeded in his power of running. The argument is pressed 2º. Connected Omnipotence owes to itself alone that it is free to act whenever it pleases; unconnected Omnipotence, however, does not owe this solely to itself, but also to creatures, whose possibility, without which it would not be free but wholly impeded, it does not imply by its own merits, but awaits as though coming from elsewhere. Who does not see that the latter belongs to imperfection and weakness of power? Explanation: unconnected Omnipotence no more implies or renders due to itself the possibility of the effect than if that possibility were within the free power of a creature, a power neither originating from God nor preventable by Him. For this is the force of non-connection: to be unconcerned with the possibility of the creature, but, so far as lies in itself, to permit the creature to be rendered possible or impossible, whether by its own force or from elsewhere. Therefore unconnected Omnipotence, so far as lies in itself, permits it to be within the creature's power to restrain or check that very power, so that it may never act, even though it most strongly wills to act. But this argues a great weakness in Omnipotence. For suppose that the creature were free, without consulting God, to render itself possible or impossible. Omnipotence would never be able to effect anything unless it obtained as a favor from the creature that the creature allow itself to be possible.

4. Certainly, a power able to effect nothing except on condition that another wills or permits it is undoubtedly very imperfect and subordinate to the other. Therefore, a power which of itself is indifferent to an event in which it could effect nothing except under that condition is indifferent to being subordinated to another with great imperfection. But such is unconnected Omnipotence, since of itself it is not repugnant to an event in which the possibility of all creatures depends upon some freedom distinct from and independent of God. This freedom is indeed chimerical; but according to the adversaries Omnipotence is not repugnant to an event in which every chimera becomes possible, except perhaps those which are directly and immediately opposed to some Divine predicate, such as, for example, a divine lie or false revelation, which is immediately opposed to the truthfulness of God. But a freedom or power of rendering all creatures impossible without consulting God is not directly opposed to any Divine predicate. If this is denied, I ask: to which one? For it is opposed to

Omnipotence only insofar as it can withdraw from Omnipotence the possibility of its effects; but this is no opposition if, as is contended, nothing is detracted from Omnipotence by the fact that every creature becomes impossible. It may perhaps be said that such a power, independent of God, would be another God, and would therefore be directly opposed to the unity of God. But this is said in vain. For, first, that power would not be another God, since it is not proper to God to make possibles impossible, or conversely. Second, although that power were opposed to the unity of God, it would not thereby be formally opposed to His Omnipotence as such, since it would do nothing against the concept of Omnipotence as expounded by the adversary. And this suffices for me to prove that, according to that doctrine, the concept of Omnipotence is not repugnant to, nor does it resist, subordination to another.

5. And from this the assertion is proved 2º. Non-connection with possibles destroys, or greatly diminishes, the perfection of several attributes of God, such as dominion or the power of ruling, freedom, justice, mercy, and liberality, which cannot be explained or exercised except toward creatures. The assumption is evident. For if connection is removed, God is intrinsically indifferent to an event in which no creature is possible; therefore He is indifferent to an event in which He can absolutely rule over nothing, and in which He is not absolutely free, nor absolutely able to decree just things, nor to have mercy, nor to confer benefits. For in that case, according to the adversaries, such power in God would not be absolute but purely conditional, under the condition, namely, that creatures were rendered possible, a condition which would neither be implied by God nor be capable of being implied by Him. Therefore, even in fact, God is of Himself and by His own merits no more than conditionally free and able to rule, etc.; for according to the adversaries God now has intrinsically nothing other than what He would have if no creature were possible. But merely conditional freedom, especially under a condition not dependent upon oneself, and a similar power of ruling, benefiting, showing mercy, etc., is much less perfect than absolute freedom, as is evident both from common judgment, from the example of human freedom and power, and because freedom conditioned in this way is an impeded and bound freedom, unable by its own power to become free, and consequently is more properly called non-freedom, just as one is said not to be free to hear Mass who is either detained in prison or does not have access to a priest willing to celebrate. Therefore the perfection of those attributes is greatly diminished if connection is removed.

6. The argument is pressed 1º. Given non-connection, God is intrinsically indifferent to an event in which there is a power independent of Himself to destroy the possibility of creatures, as we saw shortly before. Therefore He is intrinsically indifferent to the possibility that, without consulting Him, another power should deprive Him of the office and exercise of Lord, Judge, Benefactor, etc. Of the exercise this is clear; likewise of the office, for the office of a king whose subjects are impossible, and the office of a judge or benefactor for whom judging or benefiting is chimerical, seems frivolous and empty. The argument is pressed 2º. From the very terms it is absurd that God should be intrinsically indifferent to having the sources of mercy and beneficence extrinsically closed to Him, so that He would not remain free to derive any stream from them. But God will be thus indifferent if of Himself He does not resist the impossibility of creatures. For from this impossibility it would follow that the fountains of Divine mercy and beneficence remained extrinsically and entirely closed, without any freedom on God's part either to flow forth while the impediment remains or to remove the impediment itself. The argument is pressed 3º. By faith we believe that God can do whatever He wills; and God Himself intrinsically verifies this article of faith, for in that article we do not believe anything distinct from God. But God would not intrinsically verify it if He were intrinsically indifferent to the event of the impossibility of creatures; for He would thus intrinsically permit an event in which He could will nothing *ad extra*, and consequently in which that article of faith would be falsified, since there would be no subject supposing with respect to whatever He wills.

7. From what has been said another common proof will receive strength: namely, that if God were intrinsically indifferent to the impossibility of all creatures, He would be indifferent to an event in which He could produce nothing, since then nothing would be producible; therefore He would be intrinsically indifferent to an event in which He would lose Omnipotence, or in which He would not be omnipotent but able to do nothing. The common answer of the adversaries is that in that event Omnipotence would not fail except according to the denomination "absolutely powerful," which denomination is not adequately intrinsic to God but is constituted partly by the possibility of creatures extrinsic to God, as a condition wholly necessary in order that God be called absolutely powerful to act *ad extra*. Therefore, only a most sufficient power, considered in itself, to produce whatever should not be repugnant is intrinsic to God; or, what comes to the same thing, a power of itself sufficient to produce all creatures, indeed even chimeras, under the condition that they not be repugnant. This may be called power as regards sufficiency, not as regards efficacy. But this answer is

rejected 1º from what was said in proofs 1º and 2º, where we showed that a power which is not intrinsically and absolutely able to act whenever it wills, and which does not exclude impediments not subject to its freedom, but rather permits itself to be impeded and, as it were, bound in chains from without, is neither perfect nor worthy of God. Likewise, a merely conditional power under a condition neither implied by nor dependent upon itself greatly diminishes the freedom, dominion, and other attributes of God.

8. It is rejected 2º. If possibles were lacking, God could no more produce creatures than He can now produce chimeras, as the adversaries grant. But He now does not possess of Himself a true power and sufficiency for producing chimeras, even under the condition that they should become possible. Therefore neither would He then possess such a power for producing creatures; therefore all true power and sufficiency of God for acting would then fail. Proof of the minor premise: with respect to a term essentially incapable of production, a true sufficiency of power under a condition which the term itself renders essentially impossible is repugnant. But such is the power of producing a chimera under the condition that it become possible. Therefore, etc. Proof of the major premise 1º. For no other reason is a true sufficiency of causing or destroying God now repugnant under the condition that God become causable or mortal. Hence the adversaries commonly grant that God is connected with the impossibility of a thing able to cause or destroy Him, because God is essentially uncausable and immortal. 2º. Because the producibility of a term argues the non-repugnance of a productive power; and therefore the possibility of creatures is connected with Omnipotence, as almost everyone asserts. For the same reason, even according to the adversaries, God is connected with the impossibility of a lie proceeding from Himself, because, if such a lie were possible, it would argue in God a power of lying. Therefore, likewise, the improducibility of a term argues the repugnance of productive power. The consequence is evident, because improducibility stands to inability to produce as producibility stands to productive power; nor is there greater reason why a producible should be repugnant without a productive power than a productive power without a producible, just as a producer without a product and a product without a producer are equally repugnant, because in each case the law of correlatives applies.

9. 3º. Because, especially in God, a power of acting bound by an impediment metaphysically incapable of being removed or prevented is repugnant. But such would be a power of producing a chimera under the condition of possibility, because of the impediment arising from the essential repugnance of the term. The argument is pressed: a power of acting

under a condition which God Himself renders essentially impossible is repugnant to God. Therefore a power under a condition which the term renders essentially impossible is likewise repugnant. The antecedent is evident, both because for this reason a conditional power of lying under the condition of the possibility of a lie is repugnant to God, namely, because God Himself renders that repugnant condition impossible; and because, if God were connected with the impossibility of a chimera, He could in no way produce it, since God Himself would render the condition of possibility impossible. The consequence, however, seems sound: 1º because it is equally chimerical for the power to be reduced to act, and the power is equally insolubly bound, in the one event as in the other; 2º because a power impeded intrinsically, or by God Himself, is less unworthy of God than a power extrinsically impeded by an eternal and essentially insoluble impediment which in no way proceeds from the power of God.

10. From these things it may be inferred that God is connected with the impossibility of all chimeras, because He intrinsically implies that whatever He cannot produce is impossible. Almost all the adversaries grant that God is connected with those chimeras whose impossibility is immediately founded upon some Divine predicate; for example, that God is connected with the repugnance of several Gods, because He is essentially "one"; with the repugnance of divine sin, because He is supremely "holy"; with the repugnance of a divine lie, because He is supremely "truthful"; and with the repugnance of a cause able to cause, destroy, or change Him, because He is essentially "uncaused, immortal, and immutable." Yet they deny that He is thus connected with other chimeras, for example, with a goat-stag. But if from God's inability to lie there results a connection with the impossibility of a lie, there will likewise result from His inability to produce chimeras, which we have just shown, a connection with the impossibility of all chimeras. Add 1º that most of the adversaries' arguments are pressed against them in such chimeras. Add 2º that by the same right by which there is posited in God a power to produce a goat-stag under the condition that it should become possible, there could also be posited in God a power of lying under the condition that a lie were not unworthy nor contrary to reason. If it is said that this condition destroys the essence of a lie, the very same admission is made against oneself; for the condition of possibility undoubtedly also destroys the essence of a goat-stag. Add 3º that there is no reason why inability should more imply an impossible term than power implies a possible term. Therefore, if God implies the impossibility of His own lie because He is supremely unable to lie, why does He not imply the possibility of creatures because He is supremely able to produce them?

11. It is rejected 3º by the argument which Fr. Peynado takes from Fr. Ribadeneyra and develops. According to the doctrine of the answer, a conditional power of producing man under the condition of possibility is intrinsic to God, but not under the condition of impossibility, because man would then be a chimera. Therefore God intrinsically implies a distinction between the possibility of man and the impossibility of a chimera; for to be able under one condition and not under another cannot stand without a distinction between the one and the other. But for the possibility of man, which is not distinguished from his essence, as we noted at the outset, to be distinguished from the impossibility of a chimera is for it not to be chimerical nor to imply a contradiction. Therefore God intrinsically implies that the possibility of man is such as it actually is. The same argument may be made concerning other creatures. It may be said: God does not intrinsically imply that the possibility of man is in fact distinguished from a chimera, since He does not imply that man is in fact possible; He only implies that it would be distinct if it were given. Against this: man, speaking of the merely possible man, is now possible precisely insofar as, if he were given, he would be distinct from every contradiction or chimera; nor in any other sense do we maintain that God is connected with the possibility of man. Therefore God, by implying that the possibility and hence the essence of man, if it were given, would be distinct from a chimera, implies the possibility of man in the sense intended by us.

12. It may be replied: God does not imply that the possibility of man would be distinguished from a chimera if it were given exercitively and absolutely, but only if it were given objectively or conditionally, that is, if it were such an object of which it could truly be said: "If it existed, it would not imply a contradiction." But this evasion, which Fr. Peynado neither attacks nor proposes, is rejected thus: God implies that He Himself is known by His intellect as able under the condition of possibility rather than impossibility. Therefore He implies that possibility is immediately conceived by His intellect as an object distinct from impossibility, or that it is intentionally and objectively distinguished from it. For if the intellect proposes to itself no difference between the two conditions, how could it know that God can act under one rather than the other? But possibility cannot be thus conceived and objectively distinguished unless it is conceived as existing at least conditionally, or as an object of which it is truly said: "If it existed, it would not imply a contradiction"; for there is no other mode of distinction from a chimera except by true existence, at least conditional. Therefore God implies possibility at least as objectively and conditionally posited. The argument is pressed: God implies that possibility is conceived as distinct

from a chimera at least in the case of conditional positing. But it cannot be so conceived without also being conceived as distinct in the case of absolute positing, as will be evident to one who considers the matter. Therefore, etc.

13. Some of the adversaries, to whom a conditional power under an impossible condition appears difficult, say that if the possibility of creatures failed, God's Omnipotence would remain as regards its entity, but not as regards the denomination "powerful," in nearly the same way in which God's knowledge of the existence of the world would be the same as regards its entity if the world did not exist, and yet would not denominate God "knowing" that the world exists. But this doctrine, first, does not avoid a conditional power or capacity under an impossible condition. For even if God is posited as intrinsically separable from the denomination "powerful," He is at least intrinsically capable of that denomination, since He in fact possesses it; just as, although He is intrinsically separable from the denomination "knowing the existence of the world," He is intrinsically capable of that denomination. But if possibles became chimerical, God would not be intrinsically capable of the denomination "powerful" except under the impossible condition, namely, that chimeras became possible, just as now He is not otherwise capable of being denominated "powerful" with respect to chimeras. Therefore, etc.

14. Moreover, this doctrine posits God as of Himself indifferent to an event in which He is in no way denominated "powerful," and consequently in which it may truly be said that He is "wholly powerless and unfruitful," and loses the magnificent names "First Cause, fountain, and origin" of all things; and consequently in which He is not truly called "free, just, merciful, liberal, capable of ruling." All of these things appear both absurd from the terms themselves and contrary to the mind of orthodox theologians, who understand attributes of this kind, under their proper names, to be intrinsic perfections of God no less than the denominations "holy, good, eternal," etc. The reason *a priori* is that power, and understand the same of freedom and the other attributes just enumerated, considered precisely as such, is numbered among the perfections which they call simply simple, namely, those which are always better than their opposites. For who can doubt that, from the terms themselves, it is better and more estimable to be able to act than to be unable? But all simply simple perfections, according to sound Theology, are intrinsic to God and essentially inseparable from Him. Hence it follows that God intrinsically possesses whatever is necessary to constitute the denomination "absolutely powerful," just as He possesses whatever is necessary for the denomination "holy." Accordingly, the former denomination is not constituted by the intrinsic possibility of creatures,

although it essentially implies it, just as the denomination "holy" is not constituted by the intrinsic impossibility of sin, although it essentially implies it. See what was said disp. 3, c. 5, n. 10, sqq.

15. The example of God's contingent knowledge concerning the world is irrelevant. First, because the denomination "knowing" this contingent object rather than its opposite is called by no one a simply simple perfection. Second, because in the denominations "freely willing" and "knowing" contingent objects, faith compels us to admit a possibility of failure, or rather of impediment, with respect to the denomination; but nothing compels us to transfer to another matter the difficulty of so great a mystery. Third, and principally, because if the denomination "knowing that the world exists" failed, it would be sufficiently compensated by the denomination "knowing that the world does not exist"; likewise the denomination "freely willing" by the denomination "freely willing" the opposite. But how will the denomination "able to do all things" be compensated by the denomination "able to do nothing"? Hence the example is turned back upon them. For the Divine intellect, although indifferent as to being denominated either "knowing that the world exists" or "knowing that it does not exist," is nevertheless not indifferent to lacking every denomination of "knowing" and being called utterly "ignorant" of all things. The same occurs in the Divine will insofar as it is free, as it were, in first act. But the adversaries imagine God to be of Himself indifferent to lacking every denomination of "powerful," and to being truly said to be able to produce "nothing," nor freely to will anything.

16. With the solution just attacked coincide two others given by Master Manso. One is that, if possibles failed, Omnipotence would fail as regards the oblique, not as regards the direct; that is, the possibility of creatures, which the denomination "powerful" imports obliquely, would fail, but the intrinsic perfection of God which that denomination directly signifies would not fail. The other is that Omnipotence may be supposed virtually indistinct from intellect and will and from the generative and spirative powers in the Trinity. On this supposition, from the failure of possibles only the denomination "powerful *ad extra*," which is a secondary denomination or secondary formal effect of Omnipotence, would fail; but the denomination "infinitely powerful *ad intra*," which is the primary denomination of Omnipotence or its primary formal effect, would not fail. The solution is pressed: it supposes God to be of Himself indifferent to lacking every denomination "powerful *ad extra*." Therefore either solution is easily attacked both from our first and second proofs and from what was said against the preceding solution. Certainly, whatever may be said about the

primary or secondary denomination, that God should be intrinsically indifferent to having His power of acting *ad extra* insolubly bound from without, to having the sources of all beneficence and mercy entirely closed to Him, and to having every exercise of His own freedom and denominative power extrinsically taken away from Him: this, I say, I do not know how to conceive without an imperfection utterly alien to God.

17. Finally I add briefly two other proofs of our opinion. The first is this: God intrinsically implies that the identity of man with a chimera is impossible; therefore He intrinsically implies that the distinction of man from a chimera is possible; therefore He intrinsically implies that the essence of man is possible. Each consequence is legitimate, as will be clear to one who considers it. Proof of the antecedent: God has an intrinsic inability to effect that man should be identified with a chimera; for no one recognizes in God a power of making possibles impossible or conversely. But that inability intrinsically implies that the identity of man with a chimera is impossible. Therefore, etc. Proof of the minor premise: from God's inability with respect to some term, the impossibility of the term is rightly inferred. This is evident 1º from the parallel of a divine lie, whose impossibility is rightly inferred from God's inability to lie; 2º because the possibility of a term legitimately implies God's power with respect to it, and therefore the possibility of creatures is connected with Omnipotence, as the adversaries everywhere admit. Therefore, since the opposite of the antecedent is legitimately inferred from the opposite of the consequent, from God's inability with respect to a term the impossibility of that same term is legitimately inferred. Nor may it be said that God of Himself has power with respect to that identity under the condition that it be possible. For this is to say that there is in God a power with respect to the identity of man with a chimera under the condition that it not be the identity of man with a chimera; which, as is evident, is empty. This argument equally proves God's connection with every possible thing and with every chimera as impossible.

18. The second proof, and a sufficiently common one, is this: God virtually and eminently contains man. This containment consists in God's containing without imperfection or limitation whatever perfection there is in man, understand the same of other creatures, and, moreover, in His having of Himself a fecundity sufficient to produce man. Nor is there any doubt that this containment, whether it is called conditionally terminated or otherwise, is subjectively absolute and identified with God. But such containment necessarily implies that man is not a chimera. Therefore it implies that man is possible, and consequently God is connected with his possibility. Proof of the minor premise: such containment contains man

rather than a chimera; otherwise, just as God is eminently man, so He would eminently be a chimera, which is absurd. But He would not contain man rather than a chimera unless He implied that man is distinguished from a chimera. Therefore, etc. The argument is pressed 1º: that containment makes God eminently what man would be formally if he existed. But it cannot make God be eminently something implying a contradiction. Therefore it cannot permit that man, if he existed, would formally imply a contradiction; and this is to exclude the impossibility of man.

19. The argument is pressed 2º. God in no way contains a chimera as such. Hence even the adversaries say that God's power does not extend to a chimera except under the condition that it become possible, that is, under the condition that it cease to be a chimera. And although some anonymous recent authors cited by Fr. Hemelman seem to say the opposite, Fr. Peynado plainly shows that this is contrary to the common judgment of the Holy Fathers, theologians, and philosophers (cited disp. 3, n. 26). Therefore God necessarily implies that what He contains is distinguished from a chimera as such. Since, then, He eminently contains man, He necessarily implies man as distinct from a chimera as such. The argument is pressed 3º. For God eminently to contain man is to possess a perfection truly, and not chimerically, participable by man. Therefore in that containment is founded or rooted this truth: "If the perfection of God were participated by man, it would not be participated chimerically." But this truth is the very possibility of man, or signifies it. Therefore, etc.

20. From what has been said thus far it is plainly deduced that God is metaphysically connected with the possibility of all creatures and with the impossibility of all chimeras, not only in common but also in particular. For God cannot have with respect to any creature or chimera a power that is impeded, or of itself extrinsically capable of being impeded, nor one conditioned under an impossible condition. Moreover, He essentially implies the distinction of each possible from each chimera and conversely, since He cannot effect their identity with one another. Furthermore, if even one chimera became possible, there would accrue to God a new containment and a new intrinsic power which He does not now possess; and if even one creature became impossible, there would fail in God some true power and containment which He now identifies with Himself. But God essentially excludes an event in which either a new intrinsic perfection accrues to Him or one which He now identifies with Himself fails.

21. It may be said: a power does not fail unless its primary formal term, or the formal aspect "under which," fails. But even if the possibility of an ant failed, the formal aspect "under which" of the Divine power, namely, the

aspect of being as such, would not therefore fail. Therefore, etc. I answer: first, there corresponds to the Divine power on the part of reality no precise or abstract formal aspect, since no such thing is or can be given on the part of reality. Nor does Omnipotence tend under the aspect of being otherwise than insofar as it essentially possesses the capacity to extend to every individual of which it is verified that it is a being, including even the ant. But if an ant became impossible, Omnipotence could no longer extend as it now does, and therefore would not be the same Omnipotence as it now is. Second, the power of God is as intrinsically productive of an ant according to its specific or individual aspect as according to the aspect of being. Therefore it would fail through the failure of the possibility of one no less than of the other. Finally, lest we cling to words, I omit the major premise and deny the minor premise, because the formal aspect "under which" of Omnipotence is not the aspect of being in just any sense, but the aspect of being as contractible to all the inferior things now possible, with none excepted; which aspect would plainly not remain the same in that hypothesis.

CHAPTER II.

The Contrary Arguments Are Resolved.

1. In order that almost all the objections may be pressed, it must be kept before the eyes 1º that God is connected with the impossibility of those chimeras of which chapter preceding, n. 10, as the adversaries everywhere admit; nor can this be denied on any ground, as Fr. Peynado effectively shows (cited disp. 3, n. 35, sq.). Who can doubt that God from His precisely intrinsic predicates excludes an event in which He would not be essentially "one" or "holy"? But such would be an event in which another God or divine sin were not repugnant. 2º That God is also connected with these objective truths: "The possibility of man, if it were given, would not be impossibility"; "The possibility of things rather than impossibility, if given, denominates God absolutely powerful"; "Man, if he is possible, will be producible by God, and if he is a chimera, will be improducible." This is evident from the doctrine of the adversaries reported in the preceding chapter. 3º That God is similarly connected indeterminately with either the possibility or impossibility of things, or with this objective truth: "Creatures are either possible or impossible." For according to the adversaries it depends on this whether God is or is not absolutely powerful to act *ad extra*; and it is repugnant for God to exist without being either absolutely powerful or not absolutely powerful.

2. Objection 1º. From God's connection with possibles several absurdities follow. Therefore such connection must be rejected. Proof of the antecedent 1º. Because contrary to Scripture and the Fathers it follows that God depends upon creatures and needs them, since He cannot exist without them as possible. Hence God will not be sufficient for Himself, since for His existence, and therefore for His happiness, He needs the possibility of creatures. 2º Because there will be in God an order or transcendental relation to possibles; hence God will of Himself be ordered to creatures. 3º Because God will be specified by creatures. 4º Because this truth, "An ant is possible," will be no less necessary than this, "God exists," since the latter would fail if the former failed; which is contrary to common judgment and to the doctrine of St. Thomas, who says: "Those things are most necessary which are most beings." 5º Because God will also be connected with the possibility of sin capable of being committed by a creature, and will therefore be necessarily bound to a term which He hates. 6º Because the blessed, seeing Omnipotence, will see in it all possibles and therefore will comprehend Omnipotence. Confirmation: unconnected Omnipotence is more perfect and more worthy of God. First, because it is more independent of creatures, namely, not only of creatures as existent but also as possible. Second, because it is less capable of failure, since it could not fail even in the event of the impossibility of creatures. Third, because it has a greater amplitude of power, since of itself it could both produce chimeras and produce creatures even if they became impossible.

3. To the objection, I deny the antecedent. To proof 1º: first, God does not depend upon creatures as existent; second, neither does He depend upon their possibility as upon a cause or a complement proper and intrinsic to Himself. Scripture and the Fathers attribute to God only this independence. Therefore God is connected with creatures as possible only as with an extrinsic term which He essentially implies, not that He may receive perfection from it, but that He may bestow perfection upon it whenever He wills. Whether connection so understood can be called "dependence" or "need" is a question of words. Many disregard the scruple, provided the meaning of the expression is clear. Others, however, and in my judgment more correctly, reject the words "dependence" and "need," because not every connection, even metaphysical, carries dependence or need with it, as may be seen in the essential connection of the Persons of the Divine Trinity with one another; yet they do not depend upon nor properly need one another. The same is evident in the essential connection of God with the impossibilities and objective truths noted in n. 1, upon which God does not depend; or, if He does, why may He not depend upon the possibility

of creatures? Accordingly, "for one thing to be unable to exist without another" is not properly to depend or be in need unless the other is required as a cause, as an intrinsically perfective complement, or at least as a term of a distinct nature actually existing; none of which occurs in the present case.

4. Nor does it follow from connection that God is not sufficient for Himself. For the possibility of a creature is not required for the existence or happiness of God by way of a term of true need, that is, as causing or intrinsically constituting God in the character of existent or happy, but only by way of an extrinsic connotation, or purely extrinsic term, which God Himself implies as capable of being perfected by Himself. Accordingly, God has from Himself and in Himself whatever formally constitutes His existence and His happiness, for the whole of this consists in the Divine perfections; and, moreover, of Himself and intrinsically, without the assistance of another, He implies whatever is necessary for it by way of a purely extrinsic connotation. What greater sufficiency could there be? Far more apparently, from non-connection there results a God dependent, needy, and insufficient for Himself, since He awaits from elsewhere the possibility of things not due to Him in order to be absolutely omnipotent, free, able to rule, etc.

5. It may be said: God would be shown needy and dependent if He were connected with a creature as existent; therefore likewise if He is connected with a creature as possible. I deny the consequence. For the antecedent is true because such a connection would either render God contingent, as connected with a contingent term, or would render the creature indefectible, as implied by an indefectible connection and therefore not freely produced by God; and either would show God to be imperfect and therefore capable of dependence and need. But nothing similar occurs in the connection which we posit, since it neither renders God connected with a contingent term nor necessarily produces or renders existent any creature. It may be insisted: the possibility of a creature is not distinguished from its existence. Therefore, if God is connected with possibility, He is connected with existence. But this is to confuse the sense of the question, which we sufficiently explained at the outset. For from the same principle one could equally argue thus: God knows a thousand worlds to be possible; therefore He knows a thousand worlds to exist. Likewise: the knowledge of vision, which knows existent creatures, is contingent; therefore the knowledge of simple intelligence, which knows possibles, is also contingent. Accordingly, possibility is not now taken absolutely as something actual, but conditionally insofar as it would be something actual, true, and non-repugnant if exercised; and in this sense it is not contingent, as all suppose and as will be

explained in Metaphysics. If existence is taken in the same sense, it will likewise be necessary and terminate the connection of God. In form, granting the antecedent, I distinguish the consequence: He is connected with existence as absolutely exercised: I deny it; as truly, or non-repugnantly, to be exercised if posited: I grant it. Or thus: with existence insofar as it verifies God's necessary knowledge: I grant it; insofar as it verifies God's contingent knowledge: I deny the consequence. And in the same sense I grant or deny that God is connected with possibility, if possibility is not distinguished from existence.

6. Hence frivolous is the objection of some: the possibility of things from eternity is nothing; therefore God from eternity is connected with nothing. For it would similarly be inferred that God from eternity, insofar as He knew creatures to be possible, knew nothing; and that He now knows nothing concerning non-existent creatures. Yet to avoid confusion, I distinguish the antecedent: it is nothing, taking "is" according to present state: I grant it; taking it by ampliation and as rendering an equivalently conditional sense: I deny the antecedent. Then I distinguish the consequence: He is connected with nothing which is absolutely nothing: I grant it; with something which is conditionally nothing, that is, which would not be something true and real if posited: I deny the consequence. In sum, whatever may be the constitutive principle of possibility, it suffices for our opinion that God essentially implies in His intellect this true cognition: "Creatures, if they existed, would not imply a contradiction"; so that if this cognition, impossibly, were falsified or impeded, Omnipotence, the freedom of God, etc., would necessarily fail.

7. Now to proof 2º of n. 2. A transcendental relation in God to possible creatures is quite commonly admitted, nor is such a relation considered unworthy of God if it is not an order to another as to a cause, intrinsic complement, or properly so-called end, but solely as to a purely extrinsic term, and this not as existent but as possible. Others, however, especially Thomists, deny such a relation in God. St. Thomas frequently favors them according to Prado (cited q. 21, § 2), and Fr. Suárez (d. 47, Met. s. 15, n. 15). The reason may be that, according to common apprehension, a transcendental relation or order is not every connection, even metaphysical, but only one which regards a cause, complement, a term of the same order, or at least a term which, if it existed, would bring some advantage or disadvantage to the related foundation. But in none of these ways does the connection of God regard possible creatures. The dispute is verbal; in it the adversaries may consider what they themselves must say to the difficulties of n. 1. To proof 3º: God is not specified by creatures formally and

intrinsically, but only extrinsically and argumentatively, insofar as from the possibility of infinite creatures we infer the perfection of God. This is not an absurdity but a certain truth, even from existent creatures, as the Apostle teaches, Rom. 1, 20.

8. To 4º. Those truths are not equally necessary with respect to the absolute existentiality of the subject. For the first imports no absolute existence, whereas the second imports the necessarily exercised existence of God. And in this consists the fact that God alone is simply a necessary being; for since no thing is called actually and simply a being except when it absolutely exists, that alone is simply called a supremely necessary being which exists absolutely with supreme necessity. But this is verified of God alone, for the possibility of creatures possesses no necessity of existing absolutely. Hence those things which are most beings are most necessary, namely, by necessity of existence. Therefore those truths can be said to be equally necessary only with respect to verification or exclusion of falsity in diverse lines, namely, the one in the conditional line and the other in the absolute line; because it is as impossible for God's knowledge enunciating, "If an ant existed, it would not imply a contradiction," not to be verified as for God's knowledge saying, "God exists." Nor do the adversaries disagree if pressed by the instances of n. 1. If perhaps it is inferred: therefore this truth, "God is," is not the greatest of all. I distinguish the consequence: it is not the greatest of all with respect to the dignity and excellence of the object or subject: I deny it; with respect to the precise exclusion of falsity: I further distinguish: it is not the greatest of all absolute truths: I deny it; of all truths, including conditional ones: I grant the consequence. And again I appeal to the instances already given.

9. To 5º. God is also connected with the possibility of a creature's sin, because, if sin were repugnant, there could not stand a power of permitting, punishing, and forgiving sin, which is a true and intrinsic perfection of God. Nor is the possibility of sin hated by God insofar as it terminates the Divine connection, namely, insofar as it is the object of the knowledge of simple intelligence, because as such it actually contains no malice or offense against God, but would contain it only if it existed. But it may be said: if God is connected with the possibility of sin, He will love it; and since that possibility is identified with the malice of sin, God will also love this malice. Proof of the inference 1º. Because God loves His power as necessarily connected with that possibility, and as connected with it. Therefore He loves the term of the connection. 2º Because God must love whatever is necessary for Him to exist; but that possibility is thus necessary once the connection is posited. 3º Because God must also love what is better for Himself. But the

possibility of sin is better for God than its impossibility, for if the latter were given, God would fail, according to our contention. I answer: the same difficulty lies beneath the foregoing instances. For God is at least indeterminately connected with either the possibility or impossibility of sin; therefore He will indeterminately love either. He is likewise connected with the fact that the possibility of sin, if given, is not impossibility; therefore He will love possibility under the condition that it be given.

10. Accordingly, I deny the inference, notwithstanding its proofs. To 1º, I deny the consequence. For one who loves a thing as connected, and the connection as such, even an antecedent connection, need not love the term which is implied merely as possible and not as existent or future. For the love of such a connection of itself leaves the term in the state in which it is mere nothing and has no actual good. Thus God loves created freedom for observing the precepts, since He is its Author, and yet He does not therefore love sin as possible, with which that freedom, at least insofar as proximate and unimpeded, is certainly connected. This is especially true when the love of the connection is neither free nor practical, as happens in our case and also in the love by which God loves the infallibility of His knowledge of possible sin. Therefore the love of a connection is considered, at least interpretatively, the love of the term only when the love is free and practical, and moreover the connection is simply antecedent; for lack of this condition God does not love sin, although He loves the infallibility of His knowledge of vision concerning an existent sin, or even the connection of an act of faith with the future sin of Antichrist; and in addition the connection implies the term as existent or future. For then the lover of the connection is considered freely to determine the term to existence and therefore to procure for it whatever good it can have by identity, which is undoubtedly an indication of love, since to love, as they say, is to will good. For this reason our authors argue against the Thomists that, if God predetermined the material element of sin, with which malice is necessarily connected, He would be the Author of the malice and would love it. The case is not so here. Hence, although it be granted that God loves His own connection insofar as it of itself implies the possibility of sin and insofar as it is the form denominating sin extrinsically possible, there does not follow an extension of love to the intrinsic possibility of sin. Rather, the whole love rests in the extrinsic denominating form, no otherwise than the love by which God loves Himself as knowing sin to be possible, or even existent while it is committed, or by which He loves His knowledge as denominating sin "known."

11. To 2º. The possibility of sin is not necessary for the existence of God by way of cause, prerequisite, or complement perfecting or intrinsically

affecting God, but only in a purely extrinsic and consequent manner, namely, by way of a term necessarily implied by the Divine existence. But such a term need not be loved by God, just as it is not loved although in the same sense necessary for the existence of created freedom, which God does love. To 3º. The possibility of sin, just as it is not formally or causally good for God, but only argumentatively and presuppositively, so also is not formally or causally better for God than impossibility, but only presuppositively and argumentatively, insofar as it is a term presupposing and, as it were, *a posteriori* arguing that there exists in God the power of permitting, punishing, and forgiving, which is itself better for God than its absence. Nor in any other sense would the impossibility of sin be bad or harmful to God if it were given. But what is better for God only in this sense need not be loved by God, especially since there is no danger that perhaps that term may fail and thereby argue the ruin of Divine power unless God, with solicitous love, takes care to preserve it; for God Himself essentially removes such danger, prescinding from love.

12. To proof 6º of n. 2. Several theologians deny that from the vision of all possibles in God the comprehension of Omnipotence follows. Whatever may be said of this, it does not follow that all possibles are seen or distinctly known by the blessed, although Omnipotence metaphysically connected with them is clearly seen, because it is not necessarily seen under every expression under which it is visible and under which it may be compared with these or those possibles. Thus one who sees whiteness with his eyes, although he clearly and intuitively sees a thing essentially connected with God and essentially dependent upon Him, does not therefore see God nor attain Him in any way by that act, because such intuition is not comparative and does not see whiteness under the expression "dependent upon God." And the point is confirmed from n. 1 by the indeterminate connection with the possibility or impossibility of things.

13. To the confirmation, I deny the assumption; its proofs do not establish it. Not the first, both because we have already denied that God's connection is dependence, and because, even if in some sense it were, that greater independence which apparently results from non-connection is not a true perfection of God but a chimerical one, since it is incompossible with other truly Divine perfections, such as power incapable of being extrinsically impeded, ruling power, freedom, etc. Thus the greater independence which appears in a God unconnected with the impossibility of another God, of a divine lie, etc., is not a true perfection nor worthy of God, because it implies the ruin of Divine unity, truthfulness, etc. Not the second, because similarly that greater indefectibility is not true but chimerical, both because it implies

the failure of the Divine perfections just mentioned, and because it is like that by which God is imagined indefectible in the event of the possibility of another God or of other chimeras of that kind. Moreover, our opinion recognizes no defectibility in God except one that is purely chimerical, namely, only in the event of the impossibility of creatures, chimerical on the part of God and chimerical on the part of the creature. It therefore recognizes an indefectibility in every respect than which no greater can be conceived if conceived as truly such. For what is more indefectible than that whose failure implies a contradiction from every side? Not the third, because that greater amplitude of power is likewise chimerical, since it destroys an active power worthy of God and is like that imagined in God for producing several Gods or producing all chimeras as such, or while their impossibility remains.

14. Objection 2º. The Divine intellect does not essentially imply the knowability of a determinate object, although it essentially requires itself to know whatever shall be knowable. Therefore the same must be judged concerning Divine power in relation to the possibility of a term. Confirmation: the Divine will adheres essentially to no object outside itself by affective adherence, since it necessarily loves nothing outside itself. Therefore neither does Divine power essentially adhere through connection to possible creatures. To the objection I distinguish the antecedent. If the discussion concerns the object of contingent knowledge: I grant it. If the object of necessary knowledge, which is called the knowledge of simple intelligence: I deny the antecedent and the consequence. For the Divine intellect is essentially determined to know determinately whatever is essentially implied by the other attributes of God, and consequently to know that all creatures are possible and all chimeras impossible. Why it occurs otherwise in the object of contingent knowledge we explained in the preceding chapter. To the confirmation I distinguish the antecedent: by affective adherence in second act, consisting in actual love of an object outside Himself, I admit the antecedent; by affective adherence in first act, consisting in a power of loving it and essentially implying its lovability as possible, I deny the antecedent. Then I distinguish the consequence: He does not essentially adhere by a connection of actual production: I grant it; by a connection of productive power in first act: I deny the consequence.

15. Objection 3º. Omnipotence is a power which of itself is able to do more than possibles; therefore of itself it is truly able also with respect to impossibles; therefore it could of itself truly remain powerful with respect to those things now possible even if they became impossible. Proof of the antecedent: Omnipotence is not a power merely sufficient for possible

creatures, but a more-than-sufficient and superabundant power, since it infinitely exceeds the perfection of all possibles, even considered under the aspect of power and insofar as it is an attribute formally distinct from the others. But a power more than sufficient and superabundant with respect to some term is of itself able with respect to other things beyond that term. Therefore, etc. I deny the argument. To the proof I distinguish the major premise: it is not a power merely sufficient but more than sufficient with respect to all possibles taken individually, or even with respect to any collection not including all possibles: I grant it; with respect to the collection of all possibles: I deny the major premise. And granting the minor premise, I deny the consequence. The matter is manifestly pressed against the objection itself. For Omnipotence, however much the adversaries amplify it, is not a power extending beyond possibles and impossibles if possibles became impossible. Yet Omnipotence infinitely exceeds and would exceed the perfection of all these, as is certain, unless perhaps among the impossibles which God can produce one absurdly numbers another God. Therefore even then it will be a more-than-sufficient and superabundant power. Let it be said, then, to what else it extends.

16. Accordingly, Omnipotence, insofar as it is formally and precisely productive *ad extra*, is with respect to the collection of all possibles a merely sufficient power, because no inferior power is sufficient, and because it can produce nothing else. Yet with this it rightly coheres that Omnipotence, even formally taken, is a power superior and more excellent in perfection, so that the perfection of all possibles, compared with its perfection, is accounted as almost nothing. For it is not merely sufficient after the manner of a univocal power, but after that of an equivocal and eminent power. Nor therefore is this whole eminence of perfection materially related to the production of possibles. For it frequently happens, even among creatures, that an effect demands and essentially presupposes a power nobler than itself, so that it cannot be produced by a lesser power. Thus the natural intellective power of an angel, especially if it is identified with his substance, as the adversaries commonly hold, insofar as it is a natural power surpasses in perfection all cognitions naturally producible by it; yet all of them essentially require the whole of that power, nor can that power by reason of this excess of perfection be called naturally sufficient for other effects. Hence it must be denied that in Omnipotence as such any excess of perfection can in reason be prescinded from a merely sufficient power, that is, one sufficiently and solely sufficient for all possibles and nothing beyond. For if Omnipotence is conceived as truly sufficient for all possibles, it cannot but be conceived as "a simply infinite power," which is, as it were, the

definition of a power sufficient for all possibles, and by this very fact it is conceived as supereminently exceeding all possibles in perfection.

17. It is replied: Omnipotence exceeds possibles in perfection; therefore also under the aspect of active power, which is formally indistinct from its perfection; therefore it is a power more than adequate to possibles. But the difficulty of n. 15 returns concerning unconnected Omnipotence, as does the one we have just given concerning the natural angelic power. Moreover, the phrase "under the aspect of active power" is equivocal; it can be taken either purely subjectively or also terminatively, insofar, namely, as it obliquely signifies a term producible by the power. In the first sense I grant the first consequence, but deny it in the second, because the Divine power as such does not obliquely signify a term exceeding all possibles. Thus we commonly say that the obediential potency of our soul, active and passive, is natural in the being of an entity, but is not natural under the aspect of potency, because "under the aspect of potency" is taken terminatively. To the second consequence I say that Omnipotence is a power more than adequate in being, not in acting. If it is said that a subjective excess cannot stand without a terminative excess, nor an excess in being without an excess in acting, I simply deny this until it is proved. I note, however, that Omnipotence is a more-than-sufficient power with respect to all possibles if they are considered precisely as regards substance, or insofar as producible once and according to each one's own nature; for God can produce and reproduce the same possible things infinitely many times, varying actions, modes, and circumstances against or above their merits.

18. Objection 4º. If Peter became impossible, Omnipotence would not fail. Therefore it is not connected with the possibility of Peter. Proof of the antecedent 1º: because from this it would follow only that God could not absolutely produce Peter. But Omnipotence would not fail from this, for Peter would then stand as a chimera now stands; but Omnipotence does not now fail because it cannot absolutely produce chimeras. 2º Because there would still remain in that hypothesis "a power able to produce whatever is not repugnant," which is the essential concept of Omnipotence. Likewise there would remain a simply infinite power, because there would remain infinitely many other possibles which it could produce. Confirmation 1º. It commonly happens that one possible is rendered impossible without Omnipotence therefore failing. For this truth, "Peter did not run," understand the same of similar truths, is possible before Peter runs; yet once his running has occurred it is rendered impossible, since it is wholly impossible that what is past should not have been, as St. Thomas shows, Summa Theologiae I, q. 25, a. 4, where in ad 2 he teaches that when some

things formerly possible cease to have the character of possibles, Omnipotence remains immutable and whatever God could do, He can do insofar as lies in Himself; yet "God is said not to be able to do them because they cannot be done." Why, then, should the same not be said under the hypothesis of the repugnance of any creature in particular? Confirmation 2º. If to suppose the failure of one possible is to suppose the failure of Omnipotence, then likewise to doubt about some possible will be to doubt about Omnipotence. Therefore whenever it is disputed whether this or that is possible, the existence of Omnipotence will thereby be disputed, which is more than absurd.

19. To the objection I distinguish the antecedent: Omnipotence would not fail formally through the failure of Peter's possibility: I grant it; for a formal failure is the immediate lack of the whole entity or of some intrinsic constitutive principle, while the intrinsic possibility of a creature is distinct from the whole entity of Omnipotence. It would not fail argumentatively: I deny the antecedent and the consequence. For then the failure of some true power and eminent containment which Omnipotence identifies with itself would be argued, and therefore it would no longer be the same as it now is. To proof 1º: from that hypothesis it would follow that God lost the true intrinsic power which He now has of producing Peter. Nor would Peter then stand as a chimera now stands, at least extrinsically, for he would be chimerical contrary to the Divine right and order, and would resist God's essential connection with his possibility; this is not true of chimeras which are now such. Indeed, even intrinsically he could be called a chimera of a special kind, because intrinsically he would have the character of a term violating and frustrating a Divine right. And the point is pressed from n. 1. For it could equally be said that God would not fail if a divine lie became possible, since it would then stand as possibles now stand. Likewise with the attribute of holiness: if it became repugnant, God would not fail according to the doctrine of the objection; for holiness would then stand as any chimerical perfection now stands, and God does not fail because He lacks chimerical perfections. Likewise with the eternal Father, who similarly could be said not to fail even if the Son whom He generates became repugnant, just as He does not now fail because another Son is repugnant.

20. To proof 2º the difficulties return. For similarly, in the hypotheses just mentioned, God, by eliciting a lie, would elicit nothing repugnant to Himself; and by lacking holiness He would not lack a true and possible perfection, but would still remain "the aggregate of all possible perfections," which is, as it were, the essential concept of God. He would likewise remain simply infinite because He would retain infinitely many other perfections. It

must therefore be said that the essential concept of Omnipotence is to be able to produce whatever is not now repugnant and in the true hypothesis, and consequently to be able to produce Peter and every other individual now possible. This concept would not remain the same if Peter became repugnant. Although we, who do not know most possibles, use that confused expression, "whatever is not repugnant," the Divine power nevertheless distinctly determines all possibles in particular. It must likewise be said that, if Peter became repugnant, Omnipotence would not remain simply infinite but would be null or chimerical, nor would it remain powerful with respect to the other possibles, because the others too would consequently become repugnant through the change of Omnipotence, just as from the repugnance of holiness the other Divine perfections would likewise consequently become repugnant. Hence this hypothesis, "If Peter alone were repugnant," in order to infer the non-repugnance of the others or of Omnipotence, truly implies a contradiction in the object, or implies both contradictories at least through mediate consequences. For it implies both that Peter alone is repugnant and that he is not alone repugnant, and that the others are simultaneously repugnant and not repugnant. This is again evident from the example, "If the holiness of God alone were repugnant."

21. To confirmation 1º. That truth, and any other similar truth, is not rendered impossible in itself and intrinsically, but only accidentally, namely, from the supposition that the running occurred; which supposition and the impossibility resulting from it are free to God or freely preventable by Him. It is indeed in itself impossible that what is past, precisely as past, should not have been, for this amounts to having been and not having been, in which the contradiction is manifest, just as in being and not being. Hence this was never possible, nor did God have power with respect to it. But, as St. Thomas explains, cited a. 4, ad 1, the thing itself which has passed, taken specifically, namely Peter's running, and understand the same of the truth "Peter did not run," does not become impossible except accidentally and by a consequent impossibility freely dependent upon God. But things which become impossible in this way truly retain intrinsic possibility and possibility simply so called. This is evident in those things which God has decreed never to produce: they are impossible on the supposition of the decree; yet because this is a consequent impossibility, free to God and accidental with respect to them, they remain intrinsically possible, and God can simply produce them. The same is evident in the omission of love at the instant at which someone freely loves, indeed in any contingent thing at the instant at which it exists. For it is simply contingent and able not to be at that instant; and yet "Everything that is, on the supposition that it is,

necessarily is." In this sense St. Thomas said that some things "cease to have the character of possibles," namely, through a merely consequent and accidental impossibility; and that God "can do whatever He could do," namely, by an antecedent power, simply so called. When, however, he adds that "God is said not to be able to do them because they cannot be done," he merely indicates a suitable mode of speaking, concerning which below, n. 25.

22. To confirmation 2º I distinguish the antecedent. If it is doubted whether some object becomes impossible from having been possible: I grant it. If it is only doubted whether it is now possible: I deny the antecedent and the consequence. The same objection may be pressed thus: to suppose the failure of one Divine perfection is to suppose the failure of God; therefore to doubt concerning any Divine perfection will be to doubt concerning the existence of God. Therefore the adversary who doubts about the connection with possibles, which I assert to be a Divine perfection, doubts about the existence of God; and whoever disputes concerning the connection will dispute concerning the existence of God. If it is said: one does not doubt or dispute concerning a perfection sufficiently known to be Divine, but doubts only whether the connection is one of the truly Divine perfections, from which no doubt concerning the existence of God follows, because it is always supposed that God has all truly Divine perfections and also the connection if it truly is such. Let exactly the same answer be given. For no one doubts or disputes concerning any possible sufficiently known to be possible. It is only frequently doubted whether this or that object is one of the truly possible things, always supposing God to possess power with respect to all things that are truly possible. It would be otherwise if someone doubted whether all objects, or all finite beings, were possible; for then he could not suppose God to have power with respect to all possibles, since he would leave nothing certainly possible. Something similar would occur if one doubted concerning all perfections in the abstract whether they existed in God.

23. Objection 5º. God is not connected with the impossibility of chimeras. Therefore neither is He connected with the possibility of possibles. Proof of the antecedent 1º. Because if chimeras became possible, they would be producible by God. Therefore in that hypothesis God would exist, and consequently would not fail. 2º Because chimeras would stand in that hypothesis as creatures now stand. Therefore, just as God does not now fail, neither would He then. 3º Because it is not truly said, "A chimera is impossible because God cannot produce it," but rather conversely. This is evident both from St. Thomas, Summa Theologiae I, q. 25, a. 3, teaching that an object involving contradiction "is not subject to Omnipotence, not

because of a defect in the Divine power, but because it cannot possess the character of something feasible or possible." And a little below the Angelic Doctor says of impossibles: "Hence it is more appropriately said that they cannot be done than that God cannot do them." It is also evident because God cannot be the root of impossibility. For although God is the source of all being, non-being or repugnance to being does not come from Him. Suppose that an actual infinite is repugnant: this repugnance does not arise from God, for the impossibility of an infinite effect cannot arise from an infinite cause. Confirmation from St. Augustine, lib. 3, Contra Maximinum, c. 12, where, giving the reason why the Son of God did not generate a Son *ad intra* as did the Father, he says: "For it is not that He could not; rather, it was not fitting." He therefore recognizes in the Son a true power with respect to another Son, who nevertheless is chimerical. Therefore there will likewise be true power in God with respect to all chimeras.

24. To the objection I deny the antecedent. Its proofs are plainly pressed by those chimeras mentioned in n. 1, and are moreover easily solved. To 1º I distinguish the antecedent: they would be producible by our God: I deny it; by another God, who is truly impossible and in that hypothesis would be rendered possible: I grant the antecedent; and I similarly distinguish the consequence. Certainly one who imagines chimeras becoming possible must consequently imagine a Divine power for producing them; and since this power is wholly foreign to the true God, as was proved in the preceding chapter, it must be attributed to another God. Thus one who imagines a divine lie becoming possible must imagine a power of God to lie, which, since it is repugnant to the true God, would belong to another God incompossible with ours. Or, if preferred, say that in that hypothesis God would both fail and not fail, and would therefore be chimerical. He would fail because He would be intrinsically changed by receiving a new power which He does not now possess; He would not fail because He could then produce those things then possible. The adversaries must say the same of the hypothesis in which a divine lie became possible. To 2º, either I deny the antecedent on account of what was said in n. 19, which may be applied here; or I distinguish the antecedent: chimeras would stand in relation to the new God as creatures now stand in relation to the true God: I grant it; they would stand in relation to the true God as creatures now stand: I deny the antecedent and the consequence.

25. To 3º. That causal proposition, understood in a sound sense, is true and, as it were, *a priori*, insofar as the exclusion in God of a power with respect to a chimera may be assumed as a root implying its impossibility. It must be noted, however, that these expressions, "inability," "defect of

power," "because He cannot," and others similar to them, unless explained, according to common usage deny some power which, considered in itself, is a true power and a true perfection. In this sense we say that a blind man does not see, or that a man does not produce an angel, through inability, through a defect of power, because he cannot. For this reason St. Augustine, St. Thomas, and others rightly refuse to use those expressions without distinction concerning God, in whom no power truly so called is lacking. But if those expressions precisely deny and exclude a power which is chimerical in itself and which, if it were given, would not be a perfection but the greatest imperfection, they can indeed be verified of God, just as the inability to lie, sin, or fail is verified of Him. And in this way they are taken by us at present. For by them we deny in God only a power with respect to chimeras, which we judge to be chimerical considered in itself, since it would be an operative power and simultaneously would not be one, because no operable corresponds to it. Hence, just as St. Thomas says, cited q. 25, a. 3, ad 2, that "to be able to sin is to be able to fail in acting, which is repugnant to Omnipotence; and for this reason God cannot sin, because He is omnipotent," so it may be said that to be able to produce a chimera is to be able to fail in acting, which is to be able to strive to act and yet effect nothing. Therefore God cannot produce a chimera precisely because He is omnipotent.

26. It is now clear in what sense the expression of St. Thomas, "not because of a defect in the Divine power," is to be understood; likewise the expression, "it is more appropriately said," etc. There the latter mode of speaking is not approved as uniquely true, but as more fitting if the phrase "He cannot" is uttered without the explanation just given. In the same sense the saying of St. Augustine alleged in the confirmation can be understood. Concerning it St. Thomas is moreover to be consulted, Summa Theologiae I, q. 41, a. 6, ad 2, and q. 42, a. 6, ad 3, where he explains it in such a manner that it causes us no difficulty. Certainly it must be explained by every theologian, for since another Divine Son is chimerical according to all, certainly the fact that He is not generated by the true Son does not proceed from mere fittingness, as the expression "it was not fitting" might seem to imply. It must therefore be understood according to the subject matter, insofar as in necessary things, such as the Divine processions, not to be fitting is the same as not to be possible. Now, that God is not the root of impossibility is true of an active root, but false of a root that is purely implicative or determinative. For in this way God is also the root of all contingent "non-being" of merely possible creatures, which do not exist precisely because God does not will them to exist. Thus also, according to

the adversaries, God is the root of the impossibility of the chimeras of n. 1. Let the same be said of an actual infinite, if this is a chimera. Nor does God, because He implies the impossibility of a chimerical infinite effect, cease to be an infinite cause, since He can produce more and more effects without end.

27. But it is further replied: there is some chimera such that, if its impossibility failed, God would not fail. Proof: according to us, it is a chimera that the opinion of non-connection should be true. Suppose, then, that this chimera becomes possible. Would God therefore fail? Certainly not, because the possibility of this chimera would be the truth of the opinion of non-connection, and this truth consists in the fact that, in the case of the possibility of a chimera, God would not fail but would remain the same as He now is. But God certainly would not fail because it became true that He does not fail but remains the same as He now is. The same argument can be made concerning possibles in this way: according to us, one of the possibles is the truth of our opinion concerning connection, which truth consists in the fact that God would fail if any possible failed. Yet if this truth failed, God would not fail; otherwise He would fail from the fact that it was false that He fails. But this sophism is manifestly pressed thus: God is connected with the truth of the opinion affirming God's connection with those chimeras indicated in n. 1, for example, with His own lie as impossible. Therefore God is connected both with the impossibility of His own lie and with this truth: "God would fail if a divine lie became possible." Therefore God would fail in the case in which this truth failed and at the same time His lie became possible. Therefore God would fail in the case in which it was false that He fails. Moreover, the objection implies a contradiction in its terms, or implies both contradictories. For it supposes our opinion to be true, otherwise it plainly has no force, and therefore supposes that one of the perfections intrinsic to God is connection with possibles and chimeras; but from another side it imagines a hypothesis in which this perfection fails in God. Thus, when from this it infers that God does not fail but remains the same as He now is, it wishes Him to remain the same without the same perfections which He now has, which is to remain the same and not the same. It must therefore be said that God in each of the proposed hypotheses would all the more clearly fail from the very fact that He did not fail when His intrinsic perfection failed; for by that very fact He would become an even more manifest chimera, since He would simultaneously be failing and not failing, the same and not the same, connected and unconnected.

28. Finally, note 1º that it is also truly said: "God cannot produce a chimera because a chimera in itself is not feasible," provided only causality

or intentional priority with respect to us is denoted, as commonly happens. For since we do not know the Divine power in itself, we are moved to deny in God power with respect to some object from the fact that we first know the object itself to imply a contradiction. Otherwise, when from the possibility or impossibility of terms we infer that God can or cannot, the inference is *a posteriori*, or from a sign; whereas when we proceed in the contrary way, the inference is *a priori*, or as from a root. Yet one must not therefore think that Omnipotence as such can be conceived in some prior sign of nature with complete precision from possibles, or with a precision of indifference. For it has no priority "in which," but only "from which," nor does it admit precision except merely by non-inclusion, or inadequate distinction. Note 2º that the connection of God with possibles ought not to be called an "innate appetite." For not every connection, even essential, is so called, but only one which regards the term as connatural to the one appetizing, that is, a term by which the one appetizing is intrinsically perfected according to its own nature, or at least by whose actual existence it is better and more advantageously disposed, and whose existence it therefore in some way intends.

29. Note 3º that frivolous is the objection of some: this disjunctive is true, "Either God exists, or Peter is possible"; therefore from the denial of the possibility of Peter it is rightly inferred that God exists. The consequence is evident, for once the truth of a disjunctive is posited, from the denial of one member the affirmation of the other is rightly inferred. This, I say, is frivolous, for by the same form the opposite is proved, namely thus: this disjunctive is true, "Either Peter is possible, or God fails." Therefore, since from the denial of one member follows the affirmation of the other, from the denial of Peter's possibility it follows that God fails. Likewise very many absurdities could be proved, for example, that the Divine Son would exist if the Father did not exist; that God would perish if the world did not exist; that a goat-stag would be possible if Peter did not exist. For these disjunctives are true: "Either the eternal Father exists, or the Son exists"; "Either the world exists, or God perishes"; "Either Peter exists, or a goat-stag is possible." Accordingly, as we noted in the *Summulae* concerning the disjunctive syllogism, the denial of one member of a disjunction does indeed imply the positing of the other when it does not destroy but leaves intact the truth of the disjunctive proposition; but not when it destroys that truth, as happens 1º when a true disjunctive proposition is not, nor can be, true except by reason of the member which is afterward denied, for example, "Either the world exists, or God perishes"; 2º when the members are necessarily connected with one another and the proposition is true by

reason of both, which, on the supposition of the objection, is not contrary to the nature of disjunctive truth. In this event the denial of one carries with it the denial of the other, as in, "Either the eternal Father exists, or the Son exists," and likewise in the proposition objected against us.

CHAPTER III.
The Disputation Is Concluded with Other Assertions.

1. From what has been said thus far it can easily be gathered what must be asserted concerning the connection both of possibles with Omnipotence and of created causes with their effects as possible, and conversely. I therefore assert 1º: possibles are essentially connected with God. This is the almost common opinion of all. The reason is both that every possible creature is intrinsically producible by God as by the First Cause, while this producibility would be repugnant if God failed; and also because every creature is essentially "a being from another," and consequently essentially supposes "a being from itself" which is the first principle of all beings from another. It may be said: Peter now existing cannot fail unless God wills it; therefore he would not fail if God failed, for then God could not will Peter's failure. But this proves that creatures as existent are not connected with God, which is evidently false and asserted by no one. Therefore I distinguish the antecedent: he cannot fail by a failure now and absolutely possible: I grant it; he cannot fail, nor could fail, by a failure possible only under the chimerical hypothesis of God's failure: I deny the antecedent and the consequence. For in that hypothesis Peter would be rendered incapable of existence, and therefore would fail both from existence and from possibility.

2. It may be said again: if God failed, a chimera would remain impossible; therefore Peter would likewise remain possible. I deny the consequence, because a chimera would not become truly producible from the fact that God failed, since this failure would contribute nothing to the production of a goat-stag. But Peter would then become truly improducible, since he could be produced by no power. Hence it may be inferred that the connection of God with possibles is mutual and reciprocal, but the connection of God with chimeras as repugnant is otherwise. For although the existence of God is a sufficient ground and root implying the repugnance of chimeras, it is not the only ground. The very concept of the chimerical object, namely, "the contradiction of predicates," excludes producibility in every event and would in no way acquire it from the failure of God. Indeed, the very absence of God would then not be merely possible but simultaneously possible and impossible, and therefore chimerical under a new title; for the absence of a

necessary being cannot otherwise be conceived or imagined. Peter's distinction from a chimera, just as his non-distinction, would then also be chimerical; indeed Peter's impossibility would consist in his being simultaneously distinct and not distinct from a chimera. If it is inferred: therefore the impossibility of a chimera is more necessary than the existence of God, since the former would persist even if God failed. I deny the consequence, for existence excludes contingency in every possible event, which is supreme necessity. A necessity considered even with respect to chimerical events is not a true necessity, since it would be exercised only chimerically.

3. I assert 2º: every created cause is essentially connected with the possibility of its effects. This too is the common opinion, even of those who deny the connection in God, apart from a few together with Fr. Oviedo. It proceeds equally not only concerning mediate connection, insofar as every cause is connected with God and God with every possible, but also concerning immediate connection. Proof: first, because every cause identifies with itself a productive power of its effects, which power would be repugnant if the effects were impossible, since a power of producing a chimerical effect is repugnant. Second, because every cause essentially implies the distinction of its effects from chimeras, since it is essentially able to give being to true beings rather than to chimerical ones, and truly contains virtually the perfection of the former rather than of chimeras. This proof establishes connection not only with effects in common, or with the formal aspect "under which," which is said to specify the power, but also with each individual effect in particular, whatever some Thomists may say. See above, c. 1, toward the end. The same proof holds in inadequate causes, to which some, with Fr. Quirós, undeservedly deny connection. It likewise holds in merely obediential causes in relation to supernatural effects which they can produce through elevation, whatever Fr. Ripalda may think to the contrary; for causes of this kind likewise imply the distinction of their effects from chimeras, and therefore their possibility.

4. But against this last point it may be said 1º: therefore supernatural effects will not be above the exigency of nature. I distinguish the consequence: above the exigency of nature which demands actually to produce them: I deny it; which demands to be able to produce them by an instrumental and inchoate power: I grant the consequence. Or otherwise: they will not be above the exigency of nature which implies that they actually exist: I deny it; which implies that they are not repugnant if they exist, or do not imply contradiction: I grant the consequence, in which there is nothing absurd. It may be said 2º: therefore an angel comprehending man

will distinctly and evidently know all and each of the effects which man can produce obedientialy; for an entity essentially connected with another, if comprehensively known, is a sufficient medium for evidently knowing the term of the connection. Therefore an angel by natural light will distinctly and evidently know many supernatural beings, indeed almost all, if man can be elevated to any one of them. The answer depends on the concept of "comprehension," an examination of which does not belong here. For the present, the objector is to be asked whether by reason of comprehension he wishes all the terms with which the object is connected to be distinctly known. If he denies this, we too shall deny the inference of the objection. If he affirms it, we shall deny the supposition of the consequent, namely, that an angel can naturally comprehend man, at least by the most perfect and strictest comprehension.

5. I assert 3º: every effect is essentially connected with the possibility of all its causes. The reason is that every effect identifies with itself a true capacity to be caused by all and each of its causes, both adequate and inadequate, both natural and obediential; by all these, I say, rather than by chimerical causes. For a true capacity to receive being from a chimerical cause implies a contradiction. It therefore implies the distinction of all these causes from chimeras, which is to imply their possibility. I assert 4º: every possible is mediately connected with every possible and with every chimera as impossible. The reason is that every possible is immediately connected with God, and God is immediately connected with every possible and every chimera; but what is connected with B, which is connected with C, is mediately connected with C. I assert 5º: every possible is also immediately connected with almost all possibles. The reason is that every possible possesses an obediential potency to produce any possible and to be produced by any possible, as we saw in the preceding disp., c. 5, § 4; but this potency imports connection, from what was said in assertions 2º and 3º.

6. But against assertion 4º it will be objected 1º. If every possible is connected with every chimera as impossible, it follows that, if even one chimera became possible, nothing would be possible, but all things would imply a contradiction, or all things would simultaneously be and not be. Therefore argumentation under an impossible hypothesis will be useless for proving anything, since under it what is intended both will be and will not be, and therefore simultaneously will and will not be inferred. I deny the consequence absolutely. For although an impossible hypothesis is useless for proving that something is possible, it is nevertheless useful for proving that something is ultimately impossible or repugnant. And in this manner it is frequently employed. For when it is said, for example, "If the Holy Spirit did

not proceed from the Son, He would not be distinguished from Him," an impossible non-distinction is already posited on the side of the consequent; and when the argument continues, "But He is distinguished from the Son; therefore He proceeds from Him," this conclusion is equivalent in sense to: "Therefore it is impossible that He not proceed from Him."

7. In this sense also we used such a hypothesis in chapter 1, namely, to prove that it is impossible for God not to be connected with possibles, or that God's indifference to an event in which He could do nothing *ad extra* is unworthy of God and therefore chimerical. Although there it was also permissible, as an argument against the man, to use such hypotheses because the adversaries, who deny the connection, could not disapprove their use. I admit that under an impossible hypothesis the consequent involves both being and not being; otherwise the hypothesis would not be impossible. Hence from the hypothesis that the Holy Spirit did not proceed from the Son it follows both that He would be distinguished and that He would not be distinguished from Him, or rather each follows simultaneously. This must be admitted by all, since procession and distinction in the Holy Spirit are certainly identified, and therefore the one cannot involve contradiction without the other. Nevertheless, the negation of distinction is rightly deduced, namely, of true distinction belonging to a truly existent proper Person; for simultaneously to be distinguished and not distinguished is not truly to be distinguished in the manner of a real Person.

8. Add to the foregoing that an impossible hypothesis is often assumed against an adversary who does not think it impossible, as happened in the said hypothesis concerning the Holy Spirit assumed against the Greeks. In that case the argument is not useless. Sometimes also one prescinds from the general connection of objects with one another, and considers or asks only whether this object by some special title implies or destroys that other object. For this purpose an impossible hypothesis is usefully assumed.

9. Objection 2º. Peter, now existing, is not connected with the possibility of his own absence. Therefore he is not connected with every possible. Proof of the antecedent: if Peter's absence became impossible, Peter would not fail; for it implies a contradiction that something should fail whose absence or failure is impossible. But Peter would fail in that hypothesis if he is connected with the possibility of his absence. Therefore, etc. Confirmation: if Peter is thus connected, this argument is sound: "Peter exists; therefore he can fail." Since, then, the inference from the opposite of the consequent to the opposite of the antecedent is valid, this will be valid: "Peter cannot fail; therefore he fails," or "does not exist"; yet this inference seems spurious from the terms themselves. I deny the antecedent, which must be denied by

all, because Peter and every creature is essentially a contingent being and therefore able not to exist; which he would not have if his absence became impossible. To the proof I deny the major premise; for Peter would then cease to be a contingent being and therefore would lose the true essence of a created being, wherefore he would necessarily fail, just as God would fail if He ceased to be a necessary being. The appended proof is distinguished thus: it implies a contradiction that something should fail whose failure is impossible now and in the true supposition: I grant it; whose failure is or would be impossible under a chimerical hypothesis: I further distinguish. It implies contradiction that it should fail with respect to the true and contingent existence which it now has: I deny it; with respect to another essentially diverse existence which it would then have: let this pass. To the confirmation: both inferences are sound by reason of their matter when speaking of Peter's true and contingent existence; for this would necessarily fail or become chimerical if it were not contingent, or, what is the same, if it could not fail.

10. Objection 3º. If Peter and his absence are connected with God, it follows that two formal contradictories, namely God and the absence of God, are connected with one another as regards existence. Proof of the absurd consequence: this reasoning will be sound: "If the absence of God is given, the absence of Peter is given," for Peter certainly would not exist if God failed; but "if Peter's absence is given, God is given," since Peter's absence is connected with God. Therefore, if God's absence is given, God is given. See how from God's absence it is finally inferred that God is given; which is for God and God's absence to be connected with one another as regards existence. Omitting Fr. Peynado's solution, I deny the inference. In the proof I distinguish the major premise of that reasoning: if God's absence is given, the contingent absence of Peter, which alone is now possible, is given: I deny it; the necessary absence of Peter, which is now chimerical, is given: I grant the major premise. For once God's absence were posited, Peter would become impossible, and therefore Peter's absence would become necessary and essentially diverse from that which is now possible and connected with God. Then I distinguish the minor premise of the same reasoning: if the contingent and truly possible absence of Peter is given, God is given: I grant it, for only such an absence of Peter is connected with God; if Peter's necessary absence, which is now chimerical, is given, God is given: I deny the minor premise, for chimeras are not reciprocally connected with God, from n. 2. And finally I deny the consequence.

DISPUTATION VIII.

ON THE FIRST CAUSE, INSOFAR AS IT CONCURS WITH SECOND CAUSES TOWARD THEIR EFFECTS.

As many tongues proclaim the existence of God, who is the first Author and First Cause of all things, as there are creatures existing in the universe, for they are so many mirrors of Divine power, wisdom, and goodness. "For His invisible things," says the Apostle, Rom. 1, "being understood through the things that are made, are clearly seen: His everlasting power also, and Divinity." The judgment of almost the whole human race agrees. For, as the great Augustine says, Tract. 106, in Joan.: "This is the force of true Divinity, that it cannot be altogether or completely hidden from a rational creature already using reason. For, excepting a few in whom nature is excessively depraved, the whole human race confesses God to be the Author of this world." Atheists alone protest, that is, men without God, a few barren monsters who have never been able to persuade any entire community of men of their delirium and folly. Against them philosophers and theologians by many and various demonstrations evidently prove the existence of the "true God," understanding by this name "a supremely necessary Being, uncaused, supreme, and unique in being such, from whom all other things derive their origin"; or, what comes to the same thing, "a supremely perfect Being, lacking every imperfection and endowed with every possible perfection either formally or eminently."

We add these last terms because among possible perfections some are called "simply simple," namely, those which in their concept involve no

imperfection nor repugnance to another superior or equal perfection, and therefore "are better themselves" than "their opposites," that is, than others repugnant to them. Such are "to live, to be wise, to be holy, truthful, omnipotent," etc. All perfections of this kind God contains "formally," that is, in such a manner that under their proper concepts they are affirmed of God. Others, however, are called perfections "in a qualified sense," or "not simply," namely, those which do not possess the conditions just mentioned, such as "to be a rose, a diamond, the sun," etc. These God contains "eminently," that is, in such a manner that He possesses a perfection of a superior order by virtue of which He can causally communicate these perfections, or produce them outside Himself.

Of the demonstrations commonly adduced we shall briefly indicate one here which seems more proper to this place. It is this. Whatever has been produced and made has been made by another; for it is repugnant to the natural light that any thing should produce itself with respect to its first being; by another, I say, which has not been produced by its own effect, since reciprocal production with respect to first being is equally repugnant. Therefore, was it made by another which is itself produced and caused, or by another which is uncaused and a being from itself? If the latter is chosen, there already exists a being dependent upon no other in being; and from this independence the other things which belong to the concept of the true God are easily proved, as I shall presently touch upon. But if the former is chosen, I shall proceed by asking by what other it was made: by a caused being or an uncaused one? And so on until a cause made by no other is reached. Nor does recourse to an infinite series of causes avail, in which a first can never be reached. For that infinite multitude of causes either contains some unproduced cause, and we have what we intended, or it contains none which is not produced by another. In the latter case either one of them produces itself, or it produces another by which it is reciprocally produced, both of which are repugnant, or some being outside the collection of them all must be sought from which that whole series derives its origin.

It may be said that from this an uncaused being is indeed proved, but not a necessary, unique, or supremely perfect one. Against this: first, an uncaused being cannot be contingent. For otherwise it could be and not be, and consequently would have a cause why it is rather than is not. Second, it cannot but be unique, both because an essentially necessary being is essentially existent and therefore essentially singular, since existence as actually exercised belongs only to singulars, and because of what will be said shortly below. Finally, it cannot but be supremely perfect, because there is

nothing from which its perfection could be limited. Not from the side of a giver or cause, since it receives from none; not from itself, because there is no foundation, no reason why a being depending upon none, receiving from none, owing to none, and yet possessing some perfection, should not possess every perfection. For there is no greater difficulty in possessing one from itself than another, nor any reason for a difference. Add that every possible perfection must have in some being self-existence and necessity of being either formally or eminently; otherwise it could be produced first by no being and therefore would not be possible. Or otherwise: every possible perfection is either uncreated or created, or creatable. If it is uncreated, it exists in the uncaused being; if creatable, it is producible by that same uncaused being. Therefore it is contained in Him either formally or eminently, according to the self-evident principle, "No one gives what he does not have."

From this there also follows the unity, or incapacity of multiplication, of the uncaused being. For such unity is a true perfection and therefore must be contained with the others in that being. It is, I say, a true perfection, both because according to the common judgment of men it belongs especially to excellence to have no other like or equal, and because the opposite plurality is an imperfection or presupposes imperfection, since it is liable to confusion, discord, and other disadvantages. Hence Cyprian, De idolorum vanitate, says: "For Divine government let an example be borrowed even from earthly affairs. When has partnership in a kingdom ever begun in fidelity, or ended without bloodshed?" And Athanasius, in Oratio contra idola: "Where there is no single ruler, there arises disorder; hence it is concluded that a multitude of gods is no godhead at all." The pagans too taught this. For Aristotle thus concludes Book XII of the *Metaphysics*: "Beings do not wish to be badly governed. A plurality of rulers is not good. Therefore let there be one ruler." And before him Homer: "For many to rule is an evil; let there be one king." This was afterward imitated by the poet who sang:

> *"No trust exists among partners in a throne,*
> *and every power will be impatient of a sharer."*

The foregoing may be confirmed thus. Supreme perfection, than which no greater that is truly such can be conceived, is not repugnant. For everything which is not supremely perfect is in some respect imperfect. But it is not imperfect through the lack of a perfection chimerical in itself, as is self-evident; therefore it is imperfect through the lack of a perfection possible in itself. But it is imperfect through lack of supreme perfection. Therefore supreme perfection is possible in itself. But supreme perfection

includes necessity of existing; for from the terms themselves it is better to exist than not to exist, and better not to be able to fail than to be liable to destruction. Therefore supreme perfection necessarily exists; and for the same reason it is necessarily supremely wise, supremely powerful, unique, unlimited, infinite, endowed with supreme dominion over all other beings, and possessing all the other attributes which we recognize in God; for all belong to the concept of supreme perfection. But now we must proceed to His concurrence with second causes.

CHAPTER I.
God Immediately Concurs with All Effects of Creatures.

1. This conclusion is so generally received among orthodox Catholics that many consider it almost a Catholic dogma, and condemn the contrary position, whose principal defender is Durandus, as an error in faith; on this see P. Suar. d. 22. Met. s. 1. Its meaning is that created causes depend upon God not only in being but also immediately in operating, so that God is not merely the mediate cause of all effects, insofar as He produces and conserves their causes, but also immediately influences every positive entity proceeding from created power. This action, or influx of God concurring with a secondary cause, is called simultaneous concurrence. It is proved 1º by testimonies of Sacred Scripture, such as Isa. 26: "Lord, You have wrought all our works for us"; John 1: "All things were made through Him, and without Him nothing was made"; and ch. 5: "My Father works until now, and I work"; and ch. 15: "Without Me you can do nothing"; 1 Cor. 12: "God, who works all things in all"; Acts 17: "God, who made the world and all things that are therein..., since He Himself gives to all life, and breath, and all things.... For in Him we live, and move, and are." I omit innumerable other texts by which we are plainly taught that God forms human members in the mother's womb, produces hay, grass, wheat, flowers, fruits, etc.; all of which the Holy Fathers constantly understand of God's immediate operation, and P. Suar. l. c. indicates many passages from them.

2. It is proved 2º by reason: God must have over secondary causes and their effects the most perfect dominion, greater than which cannot be conceived. Therefore both causes and effects must be subject to God and depend upon Him with the highest subjection and dependence. But this subjection and dependence will be much greater and stricter, both on the part of the causes, if they are subject and dependent not only in being but also in operating, and on the part of the effects, if they immediately owe their being to God and are subject to Him by reason of themselves,

depending upon Him not only through a secondary cause but also through themselves. Therefore, etc. Confirmation 1º: every effect essentially depends upon God in being conserved; therefore also in coming to be, or in being first produced. The antecedent is asserted as certain by faith by the Eximious Doctor, d. 21, Met. s. 1, and he proves it by testimonies of Scripture and the Fathers and demonstrates it by reason; nor does Durandus, or any other Catholic, seem to deny it. The consequence is proved because there is no reason why an effect should depend essentially in being conserved upon one upon whom it does not depend in coming to be. For it is not more difficult, but rather easier by the very terms, to retain for some time an existence already possessed than first to receive it. Hence, if a created agent without God's concurrence suffices to give being in the first instant, why should it not also suffice to conserve it in the second? Especially since it almost always remains applied for some time or for some instants; and even if it should immediately cease, another cause, either univocal or equivocal, could be substituted.

3. Confirmation 2º: it belongs to God's dominion that He be able immediately to impede any operations and effects whatsoever, or to destroy existing effects, without necessarily having to destroy their secondary causes, unless perhaps some cause is proved to be essentially connected with its operation. Thus in fact God impeded the combustion of the Babylonian fire, and the motion of the waters of the Jordan and the Red Sea, without destroying the fire or the gravity of the waters, or depriving them of any requisite or created co-principle. Certainly it is most absurd that, if entity A depends mediately upon a series of a thousand causes, God could not destroy that entity without removing the thousand others, so that He would be powerless to conserve any one of them if He wished to remove the ultimate effect. But God cannot do this otherwise than insofar as He can deny or suspend His immediate concurrence, which every entity needs in order to be produced or conserved. Therefore, etc. The minor premise is clear, because if, for example, the operation of fire does not need God's immediate concurrence, how will God be able to impede it, or destroy it when existing, unless He destroys the fire? Certainly the fire will not perceive God's command; and even if it did perceive it, it would possess no less complete a power of acting. At least the operation of a free power, together with only created co-principles, could in no way be restrained by God.

4. The only recourse remaining is to a certain sympathy by reason of which every created entity essentially possesses this condition, that it cannot exist unless God wills. But if every created operation immediately

depends upon God willing and essentially presupposes Him, it must presuppose Him as a cause truly exercising influx, and not as a mere condition. For that which does not lack the containment and proportion required for exercising influx, if otherwise it is determinately and individually prerequired for acting by the very essence of action as such, is not a mere condition but an influencing power, as is evident by induction; otherwise an influencing cause could never be distinguished from a mere condition. This presses especially if Omnipotence is not formally distinct from the divine will; but it presses sufficiently even with real indistinction alone.

5. Finally, confirmation: it is repugnant that an irrational agent, having no preexisting idea of the work, should by itself and by its own power, without the aid of a rational agent, produce a work wonderfully perfect and of exquisite proportion, with far greater subtlety, economy, and order of parts than the most skilled craftsmen can effect. Hence, if someone finds in a forest an excellently painted image of a rose, lily, lion, or horse, or a clockwork endowed with most orderly motion, he will be foolish unless he believes that this work was made by a highly rational craftsman possessing an idea of it. This is all the more true if not one or another such work is produced, but many, uniformly and at fixed times. But a real rose and a real lily, and likewise a real lion or living horse, consist of far greater perfection, subtlety, vigor, harmony, and order of parts than a painting, clock, or any other artifact whatsoever; nor are they produced once or twice, but by perpetual and uniform propagation. It is therefore altogether repugnant to the light of nature that works of this kind proceed from irrational causes alone without the concurrence of a rational agent, namely God, who prepossesses the ideas of all things.

6. Objection 1º: God can create a secondary cause that does not need God's immediate concurrence in order to act, for such a creature would commend God's goodness, since He would liberally bestow a complete power of acting. Therefore there is no reason not to judge that secondary causes are in fact of this kind. I answer by denying the antecedent: because God can neither divest Himself of supreme and most perfect dominion, nor exempt a creature from the highest subjection and dependence, nor confer upon it power toward effects lacking the essence of created being, as those effects would which did not depend immediately and by reason of themselves upon God. Therefore, just as God cannot produce an indestructible creature or one connaturally seeing God, although communication of these perfections might present a certain appearance of liberality, so too in our case. It is replied: it belongs to the perfection of a craftsman

that he can make a clock which afterward moves by itself without the immediate concurrence of the craftsman. Therefore likewise, etc. But this absurdly proves that creatures can be conserved for ages without God's influx, just as temples, houses, and other things are conserved without their craftsman. Hence I answer by denying the consequence, because that perfection of a human craftsman is not a perfection pure and simple, but only a perfection as found in such a subject, in which it supposes an imperfection, namely that the craftsman does not perfectly subject the artifact to himself so that its matter and form must depend essentially upon him. That perfection, therefore, is not to be transferred to God, since it is repugnant to the pure-and-simple perfection of supreme dominion.

7. Objection 2º: a created cause is often equal or superior to its effect. Therefore it will be able to produce it without the concurrence of the first cause. I answer by denying the consequence: for just as equality or superiority of perfection does not make it possible, for example, for fire to produce another fire or heat without immediate dependence upon a sustaining material cause, so neither does it enable fire to produce it without the immediate concurrence of the first cause. This is especially so since equality or superiority by itself does not imply operative power over the effect; otherwise an Angel could produce an Angel, or the sun another sun, or a horse a mouse. At most, therefore, equality or superiority together with experience of activity suffices for a created cause to be called adequate within its own genus, namely within the genus of secondary cause.

8. Objection 3º: material and formal causes, in order to cause within their own genus, do not depend immediately upon God. Therefore neither does an efficient cause, in order to operate within the genus of efficient causality. I answer by distinguishing the antecedent: they do not depend immediately upon God as exercising the office of subject or form, I grant; as effecting material and formal causality itself, I deny the antecedent and the consequence. Accordingly, not only matter and form, but material and formal causality itself, is immediately produced by and depends upon God. Nevertheless, it does not depend upon Him as upon a subject or form, or in such a way as to denominate God a material or formal cause, because that office and denomination imply imperfection. But the office and denomination of efficient cause imply no imperfection unless one adds "in the mode of a secondary agent" or "of a subordinate agent."

9. Objection 4º: if God immediately concurs with secondary causes, He will be a partial cause, which is contrary to the dignity of the most perfect agent. I answer: while God concurs with a secondary cause, although He is a total cause in His own order, namely that of first cause, nevertheless within

the genus of efficient cause as such He is a partial cause, not in first act but in second act, namely with a partiality of accommodation and condescension, not with a partiality of need or insufficiency of power. For divine power is of itself fully sufficient to produce any effects whatsoever by itself, and it diminishes its concurrence in second act in no other way than by condescension, so as to leave room for the activity of creatures. The difficulty concerning actions of a secondary cause which cannot arise from God alone remains solved in disp. 2, last ch., n. 25, and sq.; nor does it pertain to the present matter, for whether God concurs with the secondary cause or not, the creature's action essentially arises from the creature itself. Yet one must not understand that God is not a total cause by totality of effect, for He produces the whole effect, just as the creature also produces the whole. He is therefore not total only by totality of the cause actually exercising influx, because He exercises influx here and now in such a way that the influx of the created cause is simultaneously required.

10. From what has been said you will infer that, when God is said to operate many things "through secondary causes" or "by means of creatures," it does not mean that God is then a purely mediate and remote cause. It means only that He often uses creatures as causes subordinated to Himself and operating at His command, so that they may display, to the glory of the Creator, the power they have received from God. Yet this does not remove the necessity that in operating they simultaneously display the subjection and dependence proper to a creature. The principal difficulty remains concerning God's concurrence with the free acts of a creature, especially sinful acts. But before this is unraveled, the following conclusion must be established.

CHAPTER II.
The Action of a Secondary Cause and of the First Cause Concurring with It Is the Same.

1. This is commonly taught by our authors with P. Suar. cit. disp. 22, s. 3, and often elsewhere. Thomists frequently teach the contrary, although not all of them. According to them God concurs through an action identified with Himself and consisting in the act of the divine will; for it cannot consist, as Manso wishes, in an action identified with Omnipotence insofar as this is formally distinct from intellect and will, unless the difficulty concerning God's free acts is transferred without cause to other attributes. This action, insofar as it terminates in the creature's effect, is simultaneous concurrence; insofar as it terminates in the creature's own action, it is prior

concurrence. Nevertheless they also hold that prior concurrence is physical predetermination, of which later, and say that it has the mode of an action of God terminating in the creature's action. But our conclusion is proved as follows: the creature's action essentially depends upon God as upon an immediate cause; but it does not depend upon God through another really distinct action. Therefore it depends through itself, both as that which and as that by which; consequently it is God's action, and through it the effect arises from God. Therefore another superadded action belonging to God alone is unnecessary. Both consequences are legitimate even according to our adversaries, and the major premise is beyond doubt; for, since the creature's action is a true entity, the arguments just adduced against Durandus apply to it; nor do the Holy Fathers teach merely that God is the cause of every effect, but also of every action and operation of creatures.

2. The minor premise is therefore proved 1º because, at least naturally, an action of an action is repugnant, as philosophers commonly suppose with Aristotle, V *Physic.*; and rightly so, since action by its concept is the efflux and procession of itself and of the term from the power of the cause. Nor is the example to the point which Palancus opposes from external human actions, which depend upon the will through another action. For an act of will is not the physical production, for example, of walking, otherwise the will would be a power immediately exercising physical influx upon external motion, which no Thomist will grant; rather, it is merely command and application of the executive power. In this sense, however, no one denies that the external action of the creature and of God arises from an act of the divine will. 2º Because that quasi-reflexive action is entirely superfluous, since the same action can very well proceed undividedly from two agents, especially when one is subordinated to the other. This is clear in intellect and species, and likewise in will and an acquired habit; and St. Thomas expressly teaches it specifically of God and the creature, I, q. 105, a. 5, ad 2, saying: "One action does not proceed from two agents of the same order, understand total agents; but nothing prevents one and the same action from proceeding from a first and a secondary agent."

3. 3º Because it follows that prior concurrence is sufficient and simultaneous concurrence superfluous, which even the Thomists regard as absurd. It is proved because God, through that action of an action which is purely prior concurrence, immediately causes the creature's action. Therefore through the same action He immediately causes the effect; for just as the mediation of one action does not remove the immediacy of the cause with respect to the effect, neither does the mediation of two, since neither is properly a medium. Therefore another action of God besides, really or

formally distinct and terminating in the effect, in which the Thomists place simultaneous concurrence, is superfluous. 4º Because, if the action by which God causes the creature's action is physical predetermination, as Thomists commonly signify, God will not immediately cause the creature's action but will do so through a created quality; for physical predetermination is commonly called by Thomists a quality, although a transient one. But this is to fall into Durandism, no differently than if it were said that God does not cause heating except through the medium of heat. But if physical predetermination is posited as a pure modal action, then a transient action of God really distinct from God is already admitted. Once this is granted, nothing any longer prevents God from acting through the creature's own action. If for this reason one says that God causes the creature's action not only through physical predetermination but also through another action identified with Himself, one will admit, wholly uselessly and contrary to the mind of the Thomists, twofold prior concurrence, each immediate and each predetermining.

4. 5º Because, if God causes the creature's action through a prior action, then in second act God will produce the creature's action before the creature itself does. But this is incompatible with our liberty. For how shall we be free regarding an action which is supposed to have been produced by God before it is elicited by us? 6º Because that action of an action can be neither creation nor eduction. It cannot be creation, because it would follow that creation is always mixed into works of nature and art, contrary to the express doctrine of St. Thomas, I, q. 45, a. 8; and certainly the term of that action, for example heating, does not come from nothing. Nor can it be eduction, because eduction is an action depending upon a presupposed subject, received in it, and really identified with passion; none of which can belong to an action indistinct from God.

5. 7º, and *a priori*: action properly belongs to that power upon which it essentially and immediately depends, with the immediacy of that by which, once the power is presupposed, so that nothing even modally distinct mediates between the action and the power. Otherwise, I ask, for what other reason is heating the proper action of heat? But the creature's action depends essentially upon the presupposed power of God, and so immediately that nothing even modally distinct mediates between it and the power of God; otherwise another external action distinct from God would mediate, contrary to the doctrine of our adversaries. Therefore the creature's action is also the proper action of divine power. Nor may one say that another action, only formally or virtually distinct from God, mediates. First, because it could similarly be said that a created power identifies with

itself some action virtually or formally mediating between itself and the transient action. Second, because at least in a real sense nothing mediates between God's power and the creature's action. Therefore in a real sense the latter is God's immediate and proper action.

Objections Solved.

6. Objection 1º: actions are specified by causes; therefore diverse causes cannot but produce diverse actions. 2º The creature's action depends upon God's concurrence and is posterior to it; likewise God's concurrence is more perfect and more universal than the creature's concurrence. But this cannot stand without a real distinction between the two. Moreover, God and the creature act under diverse formal aspects. 3º God will depend upon the creature in operating, for He cannot operate through the creature's action without the creature. 4º God cannot act through an action really distinct from Himself. First, because God is an infinite agent in the line of acting, and the infinite, in the line in which it is infinite, identifies with itself the ultimate actuality; but the ultimate actuality in the line of acting is action. Thus God cannot live through a vital action distinct from Himself, because He is infinite under the aspect of a living being. Second, because an agent is perfected by its action; but God cannot be perfected by an action distinct from Himself. 5º Every effect depends upon God through itself, for once it exists it is not indifferent as to whether it is or is not from God. Therefore every effect is its own production by God. But it is not its own production by a created cause. Therefore it is not produced by God and the creature through the same action.

7. I answer to 1º: actions are specified by causes when they are otherwise presupposed to be really distinct, but not if the real distinction of actions is not presupposed, as is clear in an action proceeding from intellect and species, or from will and habit. Thus also powers are specified by acts; and yet specifically diverse acts can arise from the same power, as love and hatred from the will, or good and evil acts. To 2º: the creature's action is posterior, less perfect, and dependent upon God's concurrence when this is taken in first act, that is, upon the divine decree applying Omnipotence to concur; but not upon God's external concurrence, or concurrence in second act. With this the creature's action is identified, and consequently is not really posterior to it, etc. I say "really," because if God's concurrence is considered in a formal sense, or as rationally distinct, at least explicitly, from the creature's action, then it is indeed of its kind prior by logical priority, or in consequence of subsistence, and in the same sense the creature's action

depends upon it, insofar as one rightly argues, "The creature's action exists, therefore God's action exists," but not conversely. Likewise, in this formal and precisive sense God's concurrence is more universal, because under the name "God's concurrence" or "God's operation" it can extend to all possible actions. It is also more perfect, at least potentially, because it can be contracted to more perfect species of actions.

8. One may say: these points are at most true of God's concurrence as such, but not of God's determinate and individual concurrence; yet in this latter concurrence priority and greater perfection and universality must be preserved, because God concurs toward every individual effect, and indeed in a real sense, as first agent and as a more perfect and universal cause subordinating the created cause to Himself. I answer: God's determinate concurrence can still be precisively considered apart from the creature's action, at least by a precision of non-inclusion explicitly, namely according to such a relation to the first cause. Considered thus, it is more perfect, more universal, and prior presuppositively and inferentially, because it presupposes and implies a power more perfect, more universal, and prior to created power. But whatever may be said of this precision, in order that God in a real sense concur as first agent and as a more perfect and universal cause subordinating the created cause to Himself, it is enough that He act through a power caused by none, infinitely perfect, and containing all things, without whose will and influx the created cause can neither exist nor act. These perfections also shine forth in the actual concurrence itself according to its mode, insofar as it of itself and essentially presupposes these perfections in God. Hence God, even "as concurring in second act," is the first and universal agent, subordinating, etc.; both because in that denomination not only the external action but also the power itself is reduplicated, and because, even if the action alone were reduplicated, it of itself and essentially is the action of such an agent, to whom it accordingly gives the denomination "concurring" in the mode of a "first, universal," etc. Thus the substance of the soul, "as actually exercising influx," at least as that which, into cognition, is a substantial cause; yet the influx itself is not substantial except insofar as it of itself presupposes substance. Likewise the sun, "as actually concurring" with a sublunary body, is a universal cause; and yet the actual concurrence toward a determinate effect is undoubtedly particular, and is universal in no other way than insofar as it of itself presupposes the power of the sun.

9. Finally, the doctrine given can be explained first by the example of intellect concurring with a species toward intellection. For the concurrence of the intellect is commonly said to be more perfect and universal than the

concurrence of this or that impressed species; hence it is usually said that the concurrence of the intellect is determined and restricted through the species. Yet if the discussion concerns concurrence really taken as determinate toward cognition A, this expression is true only insofar as the action of itself presupposes a more perfect and universal power in the intellect than in the species. Second, by the example of efficient and material causes. For the causality of an efficient cause is more perfect than material causality; hence the latter is unworthy of God, whereas the former is not. Yet both causalities, namely action and passion, are really the same, even according to Thomists generally. One must therefore have recourse either to the formal sense or to the capacity for supplying diverse denominations according to the diverse character of the causes which that causality of itself presupposes.

10. By this example you will also solve what some object, namely that, if the action of God and the creature is the same when a vital act is produced, the same action will be transient and immanent, vital and non-vital; for with respect to the soul it will be vital and immanent, although with respect to God it is transient and non-vital. We grant the consequence with respect to diverse principles, in which there is no greater absurdity than in the fact that the same causality with respect to diverse principles is action and not action, passion and not passion; or that the same action is vital and immanent with respect to the intellect, and non-vital and non-immanent with respect to the species, which certainly neither lives through that action nor receives it. Yet we do not grant that the action is absolutely non-immanent or non-vital, because an absolute negation denotes that the action is immanent in none of its principles and renders nothing living. We grant this only relatively, or with respect to some principle. By the same example of action and passion you can explain how the action, although really the same, gives to God the denomination of agent in the mode of first cause, and to the creature the denomination of agent in the mode of secondary and subordinate cause, without those denominations being capable of confusion or inversion.

11. From what has been said you will gather in what sense God is said to act under the aspect of being, whereas the creature does not. This is not to be understood as though only the aspect of being were produced by God, for God without doubt produces all positive predicates; nor as though the aspect of being, identified with the effect, were not produced by the secondary cause, otherwise the latter would produce nothing, that is, no being. The whole effect, therefore, is produced by the first cause, and the whole by the secondary cause, by totality of effect although not by totality of cause. God is said to act under the aspect of being because He acts through a

power of itself capable of acting upon whatever is a being, understand participated being. For that formality which is found in every effect producible by a given power, and moreover in nothing else, is called the formal aspect under which that power acts. But if we speak of God's actual concurrence or action, this also is sometimes said to tend under the aspect of universal being; but then God's action is taken "as such," or in common. If, however, the discussion concerns an action terminating in an individual effect, it does not regard the aspect of universal being except presuppositively, insofar as it of itself arises from a power regarding such an aspect.

12. To 3º of the objections in n. 6, I answer by denying the consequence absolutely, even if it speaks of operating through the creature's action; because one is not properly said to depend upon another in operating merely because one cannot operate in some way without the other, but because one cannot operate without another that is not subject to oneself in operating. Thus one is not properly said to depend upon the pen in writing if one has the pen at hand with power to use it at will. But God has all creatures, even free ones, subject to Himself in operating. But if one improperly calls "dependence" that necessity of employing a created cause, on the supposition that God wishes to act by such an action and not another, I distinguish thus: God will depend, etc., with a dependence lying on the side of divine power, I deny; with a dependence lying solely on the side of such an external action, let it pass. For in this sense one could also say that God, in educing heat, depends essentially upon matter, and in producing union depends upon the existence of the extremes. Nor is this objection more against us than against everyone else. For whether God produces the creature's action through a distinct action or not, it is certain that He cannot produce that action without the created cause. Therefore He will always depend upon the creature in operating such an action.

13. To 4º, I deny the assumption, which must also be denied by Thomists, who generally suppose that God can operate by Himself alone through an eductive action; hence they frequently assert that grace and other supernatural qualities produced by God alone are truly and properly educed, as may be seen in the Collegium S. Th. Complut. lib. 1, *Physic.* q. 4. Otherwise God's simultaneous concurrence, which according to our adversaries is an action belonging to God alone, would be a creative action, contrary to St. Thomas cited above, n. 4. But an eductive action cannot be really indistinct from God for the reasons stated in the same n. 4; and otherwise the passion of grace in the soul would not be distinguished from God. Therefore God can act through an action distinct from Himself. If one

says that only the passive production of grace is identified with the passion, I answer: passive production either is a true action or it is not. If it is, then it is the action of someone to whom it gives the denomination of agent; but of whom, if not of God? If it is not, then it is false that action and passion are identified, contrary to what Thomists commonly teach.

14. Nor do the proofs of that assumption stand. For not transient action, but only immanent action, is the actuality or perfection of the agent; because transient action, since it is not in the agent but in the patient or term, intrinsically actualizes and perfects only the patient or term. And although it can in some way be called a perfection with respect to a created agent, which naturally desires to exercise its power and can derive some advantage from the effect, this is not so with respect to God, for whom it is no better actually to act *ad extra* than not to act. Hence God, although He does not identify transient action with Himself, nevertheless identifies with Himself every operation by which He can be perfected, namely immanent operation. He also identifies with Himself the ultimate actuality or perfection in the line of active power, namely the infinite and most actual sufficiency for acting, as well as free application. Yet He need not identify with Himself actualities pertaining to the effect; otherwise He would also identify with Himself the effect's very existence. Hence the example from the line of living is turned back: God identifies with Himself not only the operation but also the vital term, or quasi-term, for example love of Himself. Therefore by parity He would identify with Himself the term of active power, which is the creature. The disparity, therefore, is that the line of living is the line of immanent operation, whereas the line of acting *ad extra* is the line of transient operation. If one nevertheless wishes to call transient action an actuality of the cause because it denominates the cause actually acting in second act, I will say that it is a merely extrinsic actuality, in no way perfecting God but purely denominating Him, just as our cognition in no way perfects God although it is an actuality denominating God actually known. But God need not identify such an actuality with Himself by reason of infinity in the line of acting, just as He does not identify with Himself the actuality by which He is rendered known by us, although He is infinite in the line of knower and knowable.

15. To 5º: every effect essentially depends upon God as that which, because it essentially requires to be the term of an action of God. Yet it does not depend through itself as that by which, or in the mode of an actual emanation from God, because of itself it is indifferent to depending upon God through various actions, either natural or supernatural, arising from God alone or also from a creature, and often either eductive or creative. Nor

does this objection benefit the Thomists, both because it equally proves that the creature's action is its own production by God, and therefore is God's action, and because it proves that God's action is not identified with God but with the effect. An argument against us is also commonly drawn from creative action, whose distinction from God involves a special difficulty to be resolved appropriately in the following treatise. For now it is enough for us that the action by which God concurs with secondary causes, and which is never creation, at least as regards first being, is distinct from God and the same as the creature's action.

16. But now observe the following. 1º The decree by which God applies His Omnipotence to concur with a secondary cause is often called, especially by the ancients, an action of God, even *ad extra*: both because it is an immanent operation of the divine will regarding an external effect, and because, when God wills to concur with non-free causes, it possesses efficacy and an unfailing connection with the effect, in which it agrees with external action. St. Thomas speaks of this internal action of God in various places, as when he says that the actions of secondary agents are founded upon God's action, and that certain things are rather things operated than operations, and the like. Yet this does not remove the fact that the external action too is truly and properly an action of God, just as not only the volition by which a man applies himself to an external work, but the external operation itself also, is truly and properly an action of the soul. Therefore a twofold action must be distinguished in God concerning creatures, internal and external, or immanent and transient; yet in such a way that the internal action with respect to the effect is more properly called the principle, or the application of the principle, or concurrence in first act, than action or concurrence in second act.

17. 2º God's concurrence in second act is sometimes called "divine concurrence" and "divine action," not formally or intransitively, but presuppositively, possessively, and by procession, just as the words of Christ the Lord, and indeed everything canonical writers say, are called "divine words" and "divine discourse," although in themselves they are something created. Why every effect is not likewise called divine can scarcely be explained otherwise than by usage of speech, which could have been otherwise established if usage had so willed, just as "royal" is applied not only to a king's actions but to whatever specially pertains to a king, such as royal horses, royal palaces, royal ships, etc. 3º God's external concurrence can be called "imperfect concurrence" and an "imperfect action," not morally with respect to God, for reasons to be given below; nor physically in a privative sense, as though it lacked some perfection which according to the

order of the divine will it ought to possess; but physically in a negative sense, insofar as it is something finite and limited, like every created entity. Thus Deut. 32 says, "The works of God are perfect"; yet there is no doubt that God's works, or effects, possess the imperfection proper to a creature.

18. 4º When God alone conserves effects produced by a secondary cause, as generally occurs, He does not conserve them by the same action by which He first produced them. For since the first production is an action not of God alone but also of the creature, it must cease when the creature ceases to exercise influx. God therefore conserves those effects as a total cause in second act, and accordingly employs by Himself a new action equivalent to that by which He first produced them together with the secondary cause. Nor does it stand against this, 1º that conservation is called continued production. For this is true physically when the total conserving cause is not distinguished from the first producing cause; and morally when another cause or action succeeds the former without interruption and performs the same work or office which the former would perform if it remained. Nor does it stand against this, 2º that the new action does not transfer the effect from non-being to being. For it is accidental to the action that it finds the effect already existing in the preceding instant and thus is said not so much to produce it as to hold it in being or conserve it. Of itself it gives being to the effect for this instant in such a way that it would likewise give it if the effect had not existed in the preceding instant. 5º Finally, when God's concurrence is called "simultaneous" with the creature's action, this does not signify the simultaneity of conjunction of two actions, but only the simultaneity of identity between God's action and the creature's, as well as the simultaneity of application of both powers to concur in the same real instant of nature.

CHAPTER III.

On God's Simultaneous Concurrence with the Free Acts of a Creature, Especially Sinful Acts.

1. The arguments adduced in ch. 1 and the consensus of all Schools establish God's immediate concurrence with the free acts of a creature, not only with upright acts, which it would be impious to deny, but also with sinful acts, for example hatred of God, the volition of stealing, etc. Yet there is a difficulty, and indeed a grave one, in explaining how immediate concurrence neither makes God the author of sin nor destroys created liberty. This depends especially upon the character or tendency of the decree by which God applies His Omnipotence, namely by intentional application,

to concur with free causes; this decree is called concurrence in first act. In necessary causes there is no difficulty, for Omnipotence is applied to them through a decree effectively willing a determinate action here and now, of which action God is the author and a cause in its own right. In order to explain the whole matter, we shall first speak of God's concurrence with the act of sin, and afterward of how our liberty remains unharmed. Yet since this subject pertains more to theologians, it must be treated only briefly here.

The Thomistic Doctrine Is Rejected.

2. The doctrine of the Thomists is that God is not the cause or author of sin because, although He concurs, indeed by virtue of an efficacious and predetermining decree, toward the entity of an evil act and is a cause in its own right of that entity, nevertheless He in no way concurs toward the malice of the act as such. For if all the malice of sin, which is also called the formal element of sin, or sin taken formally or expressly, consists in something privative, namely in the lack of due rectitude, as is held by the opinion common in both Schools, then malice does not in itself terminate God's action; nor does it otherwise result from the entity of the act insofar as produced by God, but only from that entity insofar as posited by the created will, which of itself is prone to defect, or defectible. Hence the malice is imputed to the creature alone, whereas to God is attributed only the entity of the act, which is commonly called the material element of sin, the foundation and substrate of the malice. It is just as when a lame man limps: the motion alone is attributed to the soul, whereas the limping, insofar as it is a defect, is attributed only to the crooked leg. But if, as a very probable opinion in both Schools holds, the malice of a sin of commission consists in something positive, that is, in the very positive tendency, for example, of hatred of God, which of itself is contrary to right reason and transgresses divine law, then God produces and causes in the act of hatred the aspect of being, vitality, and the other merely physical predicates; but He does not produce even physically the malice as such, nor by His action physically attain the formality of malice, although it is really identified with the act of hatred.

3. But this doctrine is rejected by our entire School, both as contrary to liberty because of the predetermining decree, of which below in ch. 5, and as insufficiently consonant with God's holiness, because it does not seem adequately to preserve the truth that God is not the author of sin if He truly is the author and a cause in its own right of the evil act as regards its entity. Our theologians endeavor to establish this by many very acute arguments.

We shall now indicate only some. It is argued 1º because, supposing that malice consists in something positive, or is really identified with the act, the malice is really produced by God just as the entity of the act is. This entity is undoubtedly produced by God as determinate and individual. Therefore if God produces the entity in such a way as to be its author, He will likewise be the author of the malice. The antecedent is proved by this expository syllogism: "This entity of hatred is really produced by God; but the malice of hatred is this entity of hatred; therefore the malice of hatred is really produced by God." In the given supposition both premises are undeniable and the consequence is legitimately inferred.

4. Nor should one have recourse to precisions of the intellect, for these contribute nothing to what is done physically and on the side of the thing; and it is impious to say that God is the author of malice in a real sense. Certainly "coming to be pertains to the thing itself according as it is in itself," as St. Thomas says, III, q. 24, a. 1, ad 2. Hence when our adversaries say that malice itself is also produced by God "insofar as it is a physical entity," but not "insofar as it is malice," they first of all involve a contradiction in terms if they do not wish malice to be physically produced by God as the aspect which is produced. For what is it for that which consists in a physical entity to be physically produced, except for it to be physically produced insofar as it is a physical entity? Or what is it truly to produce a man except that through production he is determined to possess his entity and existence? Next, either the reduplication "insofar as it is malice" merely points to the mode of acting on the part of a cause which does not determine such an action from itself, or it denotes an objective formality which, although really identified with the act, nevertheless is not really produced by God. If the first is said, it is most true that malice "insofar as it is malice" is not produced by God even really, as we shall say in the following chapters; but this sense is far from the mind of the Thomists. If the second, the expository syllogism just given presses.

5. It remains for one to take refuge in an intrinsic virtual distinction, by virtue of which contradictory predicates, "to be produced by God" and "not to be produced by God," can be verified of malice and entity, although they are really the same. But first one is bound to answer all the arguments by which in Logic we rejected a distinction of this kind together with several Thomists, especially the more recent. Next, one posits a virtual distinction having no example among created things, namely one by virtue of which it is verified of the same thing that it is and is not really produced by a certain cause. One must therefore seek an example in divine things, and transfer to a most base matter an arduousness of the mystery of the Trinity naturally

unknowable, where filiation is produced by the Father but the Essence is not produced. Finally, one has no example even in divine things. For from the doctrine in question it follows that the entity of the act can really exist without the malice with which it is really identified, so that the same thing can really be and not be at once, contrary to the self-evident principle. It is proved: it could happen that, once God's action concerning the entity of the act is posited, and I speak of a determinate act identifying malice with itself, and simultaneously the creature's action as willed by God is posited, there would be no further production of malice. But then the entity of such an act would exist, since produced by its causes, while the malice would not exist, since produced by no one. Therefore, etc. The major premise is clear, because according to the Thomists the entity, or material element of sin, insofar as produced by God, is not connected with malice; and for the same reason neither is the creature's action insofar as willed by God connected with malice. Why, then, could the further production of malice not be suspended?

6. Confirmation: according to the opinion placing malice in something positive, formal malice consists in the specific difference, for example, of hatred of God, namely in its aversive tendency toward God. I presuppose the liberty which is intrinsic to acts according to the Thomists generally. For by reason of this tendency that act is formally opposed to divine law. But God does not produce the entity of the act without its specific difference; otherwise He would produce only act as such, and the act insofar as produced by God would be a universal existing on the side of the thing. Therefore God does not produce an act precisively apart from malice. The objection is urged: being formally transcends differences according to our adversaries. Therefore malice, which is the specific difference of the act, is formally being. But whatever is formally being is produced by God. Therefore, etc. And indeed it would be very strange that physical action should wholly precisively abstract the aspect of being from the differences which it transcends, although according to our adversaries the intellect, however precisive, cannot do so. It is urged again: malice is a positive formality, as is now supposed. Therefore it is a formality positively existing on the side of the thing, and accordingly positively produced, at least by the creature. But whatever is positively produced by the creature is simultaneously produced by God, unless simultaneous concurrence is denied with Durandus. Therefore, etc. If one says that malice is not something positive in its formal or express aspect, I ask whether these words denote an object that is not positive on the side of the thing and prior to our precisions, or not. If they do, then on the side of the thing malice does not

consist in something merely positive, contrary to the supposition. If they do not, then malice as posited on the side of the thing is something entirely and in every respect positive; and the argument presses.

7. Argument 2º: even if malice consists in privation, if God so produces the act as to be its cause in its own right, He cannot fail to be the cause of the malice in the mode in which the latter can be caused. For a privation, since it cannot in itself terminate a physical action, can be culpably caused only insofar as an act is intended and posited in its own right with foreknowledge that malice will result. Nor is malice caused otherwise by the creature; this is certain. But according to our adversaries God as author and cause in His own right posits the act, or the material element of sin, foreseeing that from it malice will necessarily result. For we speak of an act either intrinsically free, or at least posited in circumstances of human liberty in first act with advertence to the prohibiting law, in which it is metaphysically repugnant that the act should exist without malice. Therefore God will cause the malice in the mode in which it can be caused, and the malice itself will be attributed to God as author.

8. Nor does it stand against this that God does not intend the malice nor is moved by it to produce the act. For neither does the creature directly intend it nor is moved by it, according to the saying, "No one acting with intention works for evil," and according to St. Thomas, who proves this expressly, q. 1, *De malo*, a. 3. Rather, the creature is moved only by the delectability of the act or object, which it would generally separate from the malice most gladly if it could. Yet one who posits an act foreseeing the resulting malice is judged virtually or indirectly to will that malice, as much as suffices for the malice to be attributed and imputed to him. St. Thomas speaks of this kind of indirect will and interpretative intention, which suffices for imputation, in II *Physic.*, lect. 8, when he says: "That which always or for the most part is joined to an effect falls under the same intention; for it is foolish to say that someone intends something and does not will that which is joined to it for the most part or always." The Angelic Doctor teaches the same more expressly in q. 1, *De malo*, a. 3, where, after saying in the body that evil is always an accidental effect and apart from the intention of the agent, he then says to 15: "When an accident accompanies the principally intended effect always or for the most part, then the accident is not separated from the intention of the agent." From this he infers that "if evil is joined always or for the most part to the good which the will intends in its own right, the will is not excused from sin although it does not intend that evil in its own right. But evil, namely the privation of the order of justice, is always joined to the pleasure which is in adultery; hence one is not

excused from sin," etc. Here is a general rule which St. Thomas judges it foolish to contradict: when an agent wills or intends in its own right an effect to which malice is always joined by an unavoidable result, he wills and intends the malice in some mode sufficient for imputation.

9. Nor does it stand against this that God is not bound by laws and does not sin by that act. For we do not infer this from the contrary doctrine, but rather that God is the cause why the creature sins, or causes it to sin, so that the malice is attributed to God not as sinning through it, but as author and cause why it inheres in the creature. If this were conceded, it would be a grave blasphemy. Thus God does not live through the act of sin; yet if He causes the vitality of that act in its own right, He truly causes the creature to live through it and is the author and cause why it lives. The matter is clarified by this syllogism: he who makes another do that which he cannot do except by sinning makes the other sin, as seems clear from the terms and from constant induction. But God concurring toward the material element of sin from His own determination, or as a cause in His own right, makes man do that which he cannot do except by sinning. For it is certain that in these circumstances man cannot perform the material element of sin except by sinning. Therefore God, concurring in such a mode, makes man sin.

10. They say that God produces and wills the material element of sin taken materially and precisely insofar as it is a physical entity, but not insofar as it formally grounds malice, or under the aspect of a foundation connected with malice or implying it. But against this: we are not asking whether the aspect of grounding malice is the formal aspect under which God acts, for this is only the aspect of being as such. Rather we ask whether that aspect of foundation is really produced by God as the aspect which is produced, just as it is produced by the creature, although it is not the formal aspect under which the creature acts, or just as the aspect of vitality is produced by God although with respect to God it is not the formal aspect under which He acts; and consequently whether God is its author just as He is the author of vitality. That it is really produced by God is proved 1º because that aspect of foundation is on the side of the thing either a privative or a positive formality. The first cannot be said, because according to all the malice of a sin of commission either consists in something positive or at least is founded in something positive; and moreover because, if the aspect of foundation consisted in something privative, it would have to be founded in another positive thing, concerning which the same argument would be made. If the second is said, that formality, being really identified with the act, must be really produced by God for the reasons stated in the first argument. Moreover, the other predicates of the act are most closely

connected with that formality, for what connection is greater than real identity? Therefore God, by producing the other predicates, produces something most closely connected with the foundation of malice as such, and consequently with the resulting malice. Again, that formality either is physically produced by the creature or it is not. If not, then a positive formality really exists outside God which is produced by no one; likewise the material element of sin, insofar as physically produced by the creature, neither grounds nor implies malice, which consequently is not attributed to the creature, just as for the same reason it is not attributed to God according to our adversaries. If it is produced, then the creature's action physically extends to something positive to which the action of the first cause does not extend. Therefore the creature physically produces something positive without God's simultaneous concurrence.

11. 2º Because the foundation of malice in a sin of commission is the very specific difference of the act, for example the aversive tendency toward God, since once this is freely posited it is repugnant that malice should not result. But God physically produces the act according to its specific difference, as we argued in n. 6. Therefore He physically produces it according to the aspect of a foundation of malice. 3º Because it is repugnant to conceive the physical and individual entity of blasphemy in second act, together with liberty in first act and advertence to the prohibiting law, without conceiving either formal malice or at least its immediate foundation. For what else grounds the malice of blasphemy? But God physically produces liberty in first act together with advertence to the law, and in the composite sense of this production also the physical and individual entity of blasphemy. Therefore He produces the immediate foundation of the malice. 4º Either God, in the composite sense of the law prohibiting hatred of Himself, can command the entity of that hatred insofar as really produced by the creature with God's concurrence, or He cannot. If He can, then He could command an aversive tendency toward God while prohibiting hatred of God, which is to command the definition while prohibiting what is defined. If He cannot, why, I ask, unless because such an entity, insofar as produced by the creature with God's concurrence, grounds and metaphysically implies malice? For if it is not connected with malice, it is not even fundamentally opposed to the prohibiting law; and since moreover it is worthy of God's efficacious love according to our adversaries, why will it not be worthy of a precept?

Certain Points Are Premised for Establishing Our Position.

12. In order to explain the doctrine we must hold, I premise several points. 1º No entity can be produced, not only without God's physical concurrence, but also without a most free pre-conceived will of God immediately concerned with the very entity to be produced. Both Sacred Scripture and the Fathers attest this in innumerable places, and reason demonstrates it. For the supreme agent, depending upon none, cannot act except by willing and freely applying Himself to act. 2º, which follows from this: no created cause possesses the complete and proximate faculty of acting unless there is understood that will of God, or decree applying Omnipotence to concur, which decree is called divine concurrence in first act. For since the creature cannot act without God's concurrence, it cannot be understood as fully able to act unless Omnipotence is ready to concur; and it is not ready unless it is applied through the divine will, without which it is repugnant that Omnipotence act. Hence, although a creature is said to be proximately able to act when no created power or condition is lacking to it, this is understood of proximate potency in a qualified respect, namely according to created co-principles, not of proximate potency absolutely, until the application of divine power is understood. For this is common to every cause incapable of acting without the aid of another. Hence one of the constitutive principles of created liberty in first act, absolutely proximate and unimpeded, is the decree applying Omnipotence; for if this is precisively removed, although all other things are understood to exist, full and unimpeded liberty is not understood to exist.

13. 3º As far as concerns the present matter, God's will is twofold. One is approving, or of good pleasure, which approves its object or is pleased in it. The other is purely permissive, which wills not to impede a term to be determined by another, but neither intends nor approves it. And only with this permissive will does God operate our evil works. Hence, when it is said that nothing occurs without God's will, the statement concerns will as precisively abstracting from approving and permissive will, according to the well-known saying of St. Augustine: "Nothing occurs unless the Omnipotent wills it to occur, either by permitting it to occur or by Himself doing it." But here it must be carefully observed that, although pure permission by the terms does not imply physical concurrence, nevertheless the pure permission proper to the first cause does imply it, or regards it as not to be

withdrawn. The reason is that no one permits what he impedes. But if the permission of the first cause withdrew physical concurrence toward some work, it would impede that work, and indeed by an essential impediment, since every work is essentially incapable of existing without the physical concurrence of the first cause. Therefore the permission proper to the first cause must not withdraw physical concurrence.

14. 4º It is quite consistent with permission of an evil work that God seriously wills it not to exist and pursues it with sincere hatred; not indeed with an absolutely efficacious refusal or hatred, for in that way He would remove from the creature the power of performing the work, but only with an inefficacious one, or one efficacious "as far as lies on God's part while created liberty is preserved," insofar as it excludes from God every affection of approval toward such a work and moreover provides sufficient means for freely avoiding it, with precepts, exhortations, threats, etc., also being proposed. For there is no contradiction in someone wishing to permit another a work by not placing from himself an efficacious impediment by which the other's liberty would be prevented, while at the same time seriously seeking by other means to draw the other away from such a work. Thus a priest, although prepared to give the Eucharist to a hidden sinner publicly requesting it, and consequently prepared to permit a sacrilegious communion, which cannot be carried out without the priest's physical concurrence, can nevertheless seriously will that communion not to occur and secretly exhort the sinner to omit it, by proposing God's command, fear of damnation, etc.

15. 5º Although the decree by which God applies Omnipotence to concur with natural, or non-free, causes is metaphysically connected with the determinate effect, because there this connection entails no difficulty, nevertheless according to our principles the decree applying Omnipotence to concur with free causes cannot be so connected. For since such a decree constitutes created liberty in first act, from what was said in premise 2º, if it were connected with a determinate extreme it would destroy the creature's indifference to acting and not acting, or to acting well and badly, which indifference belongs to the concept of liberty in absolutely proximate first act. It would therefore destroy precisely that which it constitutes. Such a decree must therefore be indifferently combinable with either extreme of liberty, and must apply Omnipotence in such a way as to leave to the created will the determination of its act and consequently of the external concurrence of Omnipotence, whether toward a good act or an evil one. For this reason the decree is called indifferent, accommodative, relinquishing, or commissive, because, by accommodating itself to the nature and character

of the created will, it renders Omnipotence indifferently applied to either extreme of liberty and leaves or commits to the created will the determination of the external concurrence of Omnipotence to one rather than the other.

16. If one asks what tendency a decree of this kind can possess, I am content with whatever one wishes, provided it has the conditions just stated. Yet according to the common understanding of our authors, so far as the present matter concerns us, it can be expressed thus: "I efficaciously will the liberty of the creature to be proximately unimpeded toward good and evil operation," or also "toward obedience to and transgression of the law, so that it may freely and meritoriously posit the good operation which alone I intend and procure; and therefore I do not will by my own determination to impede the evil operation, which nevertheless I do not approve, but seriously detest and will to remain prohibited." From this tendency, which in God is most simple although our slowness cannot explain it without a circuit of many words, it follows 1º that this decree is efficacious regarding the indifferent application of Omnipotence in first act, or regarding the relinquishing of determination in second act; for it is efficacious regarding the creature's proximately unimpeded liberty, and this is constituted through such application of Omnipotence. It follows 2º that it is not efficacious as regards infallibly implying the good operation; otherwise it would contradict itself, since it would will that operation to be posited freely by the creature and yet would otherwise possess a connection repugnant to liberty. Hence in this sense it is called an inefficacious volition and intention. Yet it is not a mere wish or simple complacency, but a serious and truly efficacious volition, both as regards excluding an efficacious refusal of God concerning the existence of such an operation and as regards providing the means necessary and sufficient for it freely to exist.

17. It follows 3º that this decree is in no way an intentional or approving volition of the evil operation, but rather a detesting one. It is nevertheless permissive of it, insofar as God does not will to impede it by His own determination; permissive, I say, by permission of fact, not of right. For it does not render the operation lawful, nor dispense from the prohibition, but renders it merely proximately physically performable by the creature, and this with no other intention than that the creature freely and meritoriously omit it and elicit the good operation. In another sense permission of sin is commonly taken for the denial of efficacious aid and the conferral of inefficacious aid, which is logically connected with the existence of sin. But now we speak only of the permission which does not impede the creature's free determination by withdrawal of physical concurrence. It follows 4º that

the decree is not properly or affectively conditional or disjunctive, although it is sometimes so called with the addition "as it were." For it does not tend thus: "I will to concur with the created will on condition that it determine itself either to a good act or to an evil one." First, because that condition of the determination of the created will is not distinct from the thing conditioned, namely God's external concurrence; and second, because it would follow that God positively wills, and consequently approves, the existence of an evil act, at least conditionally or disjunctively, which is unworthy of God's supreme holiness. It can therefore be called conditional or disjunctive only equivalently in its effect or implication, insofar as in the order of physically effecting or implying the extremes of liberty it behaves as though its tendency toward them were conditional or disjunctive.

18. It follows 5º that an evil operation, when posited, is truly posited apart from, indeed against, the good pleasure and intention of God, even as formally included in the applicative decree. First, because this decree does not give the creature liberty toward an evil act except with the intention that it not use that liberty for such an act, but rather use it to omit that act meritoriously, according to Ecclus. 31: "Blessed is the man who could transgress and has not transgressed; could do evil and has not done it." Therefore when the creature uses or abuses liberty for an evil act, it acts against the intention of God applying Omnipotence. Second, because that decree wills the evil act to remain prohibited and detests its existence. Yet one must not infer from this that the act of sin is fortuitous for God. For although it occurs apart from God's intention, it does not occur apart from His infallible foreknowledge; and something is fortuitous only if it occurs unexpectedly, that is, apart from opinion or foreknowledge. Thus according to all, formal malice is apart from God's intention, yet it is not fortuitous for Him.

19. It follows 6º what the object of the applicative decree is. For 1º its object, insofar as it is altogether efficacious, is created liberty as fully constituted for obedience to the law, or for good and evil operation. One may say: therefore that decree has itself as its object, since created liberty is fully constituted through it. I answer: every divine volition expressly wills itself, just as every divine cognition expressly knows itself; and although a free volition cannot be intransitively and purely reflexive, as though it said precisely, "I will myself," it can nevertheless be reflexive transitively, namely by willing itself in order to some formal effect really or formally distinct from the mere denomination "willing," just as the volition of forgiving a debt wills the debtor "to be free from the obligation of paying" and the debt "to be remitted" or "forgiven," which is a formal effect supplied by that very

volition. Therefore the applicative decree efficaciously wills Omnipotence "to be applied," and the first act of created liberty "to be ultimately completed and unimpeded"; these denominations or formal effects the decree itself actually supplies within the genus of formal cause. Add that it simultaneously regards other objects directly, although not efficaciously. For 2º the object of that decree insofar as intentional, seriously indeed but inefficaciously in the sense explained in n. 16, is obedience to the law, or good operation. 3º The object of the same decree insofar as disapproving and simultaneously purely permitting is the existence of the evil operation, and consequently God's external concurrence toward it. But in n. 14 we have already seen that the same thing can simultaneously be disapproved and permitted.

20. One may say: if God disapproves the existence of that concurrence, He has a refusal of it. Therefore He does not will such concurrence; therefore He does not will so to concur. But Omnipotence is not applied by a refusal to concur. Therefore, etc. I distinguish the antecedent: He has an absolutely efficacious refusal, I deny; an inefficacious refusal, I subdistinguish: by which He wills such concurrence to be freely omitted by the creature, I grant; by which He wills it to be omitted non-freely, I deny the antecedent. I similarly distinguish the consequence in both respects, granting only an inefficacious refusal by which God wills such concurrence, and His own concurring in this manner, freely to be omitted or not to be determined by the creature. Then I distinguish the subsumed minor premise: Omnipotence is not applied by a refusal to concur by which God wills His concurrence freely to be avoided by the creature, I deny; by which He wills it to be avoided non-freely, I grant the minor premise and deny the consequence. Accordingly, that refusal seriously wills the creature to avoid the concurrence of Omnipotence toward an evil act, not in any way whatsoever but freely. And since it cannot freely be avoided unless the creature has proximate power to posit it, which power is not given without application of Omnipotence, this application becomes a necessary means for avoiding that concurrence in the mode in which God wills. Such a refusal therefore implies or carries with it the application of Omnipotence; for although it is inefficacious as regards implying avoidance of concurrence, it is efficacious as regards implying the necessary means, from n. 14.

21. One may further say: the applicative decree precisely insofar as permissive does not imply hatred or refusal of an evil act, for to permit precisely means not to impede. But that decree, precisely insofar as permissive, is immediately concerned with the existence of the evil act; otherwise this existence would not depend immediately upon the divine will,

and God would neither dispose nor provide anything immediately concerning it. Therefore that decree, insofar as precisively abstracting from hatred and refusal, is immediately concerned with the existence of the evil act. Therefore it is concerned with it in the mode of volition. I answer: first, the major premise could be denied, because God's proper permission seems inseparable from serious hatred and refusal of an evil work, and from the intention of its omission or of a good work. Next, granting the rest, I distinguish the last consequence: in the mode of an approving volition, which is also commonly called positive, I deny; in the mode of a permissive volition, which is also commonly called negative, I grant the consequence. Just as not every refusal is disapproval or hatred, otherwise God would hate the Incarnation of the eternal Father, of which He has a refusal, so not every volition is approval or love. There is a mean between disapproving and approving, and likewise between refusing and positively willing, namely willing permissively, which is to will an object precisely as not to be impeded by the one permitting. Such is God's volition of which we speak precisely insofar as permissive. It immediately regards the existence of the evil act; nevertheless it does not denominate it "positively willed" or simply "willed," but only "permitted," "willed permissively," or "not impeded by God through withdrawal of concurrence." This is what God disposes or provides concerning it, namely that it remain free from the impediment of that withdrawal. We speak only of the volition applying Omnipotence, not of other volitions by which God provides many things concerning sin, now impeding its existence through efficacious aid, now extrinsically ordering it to good, or decreeing punishment.

22. But it is replied: God positively wills the non-impediment or non-withdrawal of concurrence toward an evil act. But non-impediment or non-withdrawal is the positing of concurrence itself. Therefore God positively wills this positing. I answer: the non-withdrawal or non-impediment which God positively wills is not the formal and absolute non-withdrawal of external concurrence, for this alone is the positing itself of external concurrence, and this God wills only permissively; rather it is the formal non-withdrawal of internal concurrence, or concurrence in first act, consisting in the non-suspension of the application of Omnipotence. For God positively wills not to withdraw His concurrence in first act, or, what is the same, not to leave Omnipotence unapplied, or not to suspend the indifferently applicative decree. This non-suspension of the decree is simultaneously the non-withdrawal or non-impediment of external concurrence, not formally and absolutely, as though it rendered that concurrence formally posited or absolutely unimpeded, but permissively

along the way, with this addition, "as far as lies on God's part," or "from God's determination." Such non-impediment is by no means the positing of external concurrence, nor does it imply it, because that concurrence can still be impeded by the creature although it is not impeded by God's determination. But if one infers that the applicative decree wills itself, since it is itself the non-suspension of application and non-withdrawal of concurrence in first act, I grant the inference in the sense explained in n. 19, namely such that the decree does not stop in itself but as it were passes over to supplying various formal effects, one of which is to denominate the existence of sin "not impeded on God's part," and consequently "permitted by God."

23. Here it must be noted that the expression, "The permissive decree wills the existence of sin precisely as not to be impeded," or "as not impeded by God," does not denote that the decree immediately terminates only in non-impediment and in the existence of sin itself merely mediately. It signifies only that the decree wills nothing else positively or approvingly concerning the existence of sin except removal of the impediment on God's part. Otherwise, by that very fact it immediately terminates in that existence in the mode of a permissive volition; because in that decree it is formally the same and inseparable to approve removal of the impediment on God's part and immediately to will permissively the existence of sin, especially since the decree itself is the removal of the impediment from which the existence of sin is immediately denominated "not impeded on God's part." Certainly, just as this cognition, "The existence of sin is not impeded by God," immediately attains the existence of sin, although it does not affirm that it is absolutely given but only that it is not impeded by God, so this decree, "Let the existence of sin not be impeded on God's part," immediately attains that existence, although it does not approve its being absolutely posited but only its not being impeded on God's part. We call this mode of attaining a permissive volition.

The Doctrine of Our School Is Proposed and Proved.

24. With these premises, I shall propose the doctrine of our School, which is the genuine doctrine of St. Thomas, as will be proved, in two assertions. I assert 1º: God applies His Omnipotence to concur with free causes through an indifferent decree; hence God's simultaneous concurrence does not injure created liberty. That if an indifferent decree is granted, it follows properly that God's simultaneous concurrence does not injure created liberty, seems certain and is easily shown. For this

concurrence is taken either in first act or in second act. If it is taken in first act, it is the indifferent decree itself, which, since it is combinable with either extreme of liberty and leaves to the created will the determination of its act and of God's external concurrence toward either extreme, from what was said in n. 15, in no way injures that indifference which belongs to the concept of liberty, namely the indifference by which, with all prerequisites posited, it can act and not act if it is liberty of contradiction, or can perform either of opposed acts if it is liberty of contrariety. But if concurrence is taken in second act, it can injure liberty only insofar as in first act it presupposes something contrary to liberty. Yet it presupposes nothing of this kind, since concurrence in first act does not injure liberty. Add that concurrence in second act is really the creature's own action freely posited, which certainly does not injure liberty.

25. That God applies His Omnipotence to concur with free causes through an indifferent decree is proved 1º from Sacred Scripture, where Ecclus. 15 says: "God from the beginning made man and left him in the hand of his own counsel. He added His commandments and precepts. He placed before you fire and water: stretch forth your hand to whichever you will. Before man are life and death, good and evil; whichever pleases him shall be given him." Here man is plainly signified as absolutely free and proximately able to choose, and consequently the applicative decree of Omnipotence is presupposed or implied; for when this is removed or precisively excluded, liberty and proximate power are not understood to exist in man. Therefore the applicative decree is such that it leaves man in the hand of his own counsel, or, what amounts to the same, leaves him able at his own choice and from his own determination indifferently to choose either of the extremes of liberty signified by fire and water, life and death, etc. But it would not be such if it determined from itself and infallibly implied one extreme rather than the other, as seems clear in itself. Here then is the indifferent and relinquishing decree which we maintain.

26. Confirmation from St. Jerome on ch. 49 of Isaiah, saying: "God left His power to our choice, so that the will might justly obtain a reward." Likewise from St. Thomas, q. 3, *De potentia*, a. 7, ad 12, where, explaining the cited passage of Ecclesiasticus, he says: "God is not said to have left man in the hand of his own counsel because He does not operate in the will, but because He gave man's will dominion over its act, so that it would not be bound to either part of the contradiction." The phrase "not bound" does not exclude obligation of right, for this undoubtedly exists when a precept urges, but obligation of fact by which the will is determined by God to one part rather than the other. Hence in the same place, ad 13, the Angelic Doctor

adds: "The will is said to have dominion over its act, not by exclusion of the first cause, but because the first cause does not act in the will in such a way," and consequently does not decree so to act, "as to determine it necessarily to one, as it determines nature," that is, a natural or non-free cause; "and therefore the determination of the act is left in the power of reason and will." God therefore has a relinquishing decree of acting of the sort we described above. The same St. Thomas again attests this in I *Contra Gentiles*, ch. 68, in these words: "The dominion which the will has over its acts, by which it is in its power to will or not to will, excludes the determination of power to one." Yet this dominion does not exclude the applicative decree of Omnipotence, both because without it willing or not willing is not in the power of the will, and because the Holy Doctor immediately adds in the same place: "It does not, however, exclude the influx of a superior cause, from which it has both being and operation; and thus causality remains in the first cause, which is God, with respect to movements of the will." The causality and influx of the first cause is therefore supplied through a decree which does not imply determination of power to one, and consequently through an indifferent decree.

27. It is proved 2º by reason: God applies Omnipotence through a decree compatible with created liberty, as is certain. But a decree implying determination of one extreme rather than another, or infallibly connected with one and incombinable with the other, is not compatible with created liberty. Therefore the decree by which God applies Omnipotence for free causes does not possess such conditions and consequently is indifferent. The minor premise is proved because determination and connection with one extreme, incombinable with the other, if it lies on the side of first act, destroys liberty, as is clear from the concept of liberty of indifference, and as even the Thomists do not doubt; hence they do not place their physical predetermination, of which below, on the side of first act. But the decree applying Omnipotence lies on the side of first act of created liberty. Therefore, if it implies determination, etc., it is not compatible with liberty but destroys it. The remaining points are clear; and the minor premise was proved in n. 12, nor does it seem capable of denial unless one posits an unimpeded power of acting compatible with God's refusing to concur, and consequently a power simultaneously unimpeded and inhibited or bound.

28. Confirmation: in applying His Omnipotence God accommodates Himself to the condition of the created cause. But although the condition of a natural cause requires that it be determined to one by God, the condition of a free cause requires that the determination of its act be left to itself. Therefore God accommodates Himself to this condition by applying His

Omnipotence so indifferently that He leaves to the created will the determination of its act. The consequence is correct, and the major and minor premises are commended by the matter itself once the terms are penetrated. But moreover St. Thomas openly teaches the doctrine of the whole syllogism in several places. Let him be heard especially in II, dist. 25, q. 1, a. 1, ad 3, where he says: "God operates in all things, yet in each according to its condition." If He so operates, He so decreed to operate, or so applies His Omnipotence to operating. Here is the accommodative decree asserted in the major premise of our syllogism. St. Thomas presupposes its minor premise and infers its conclusion, immediately continuing thus: "Hence in natural things He operates as supplying the power of acting and as determining nature to such an action. But in free choice He acts in this way, that He supplies it with the power of acting, and with Him operating free choice acts; nevertheless the determination of the action and of the end is placed in the power of free choice. Hence dominion over its act remains with it, though not in the same way as with the first agent." He adds this last clause because the dominion of the first agent over acts free to us is not a dominion of immediate determination but of another genus, concerning which in the following chapter.

29. I assert 2º: God physically concurs with an act of sin, or the material element of sin, in such a way that He is not its author and cause in His own right, because He concurs with a purely permissive will, without any affection of approval or intention concerning the existence of such an act. Hence He is not the author of sin. The assertion presupposes the indifferent decree proved in the preceding assertion. Insofar as it infers that God is not the author of the sin because He is not the author of that act in which the material element of sin consists, it needs no proof; for no one is the author of sin resulting from an act or identified with an act unless he is the author or a cause in his own right of that act. Therefore the assertion must be proved only insofar as it asserts that God is not the author and cause in His own right of that act, and grounds this upon a purely permissive will which neither approves nor intends such an act. It is proved 1º from the Council of Trent, sess. 6, can. 6, defining thus: "If anyone says that God works evil works in the same way as good ones, not permissively only but properly and in their own right, so that the betrayal of Judas is no less His proper work than the calling of Paul, let him be anathema."

Here the Council plainly supposes that God "operates" evil works through simultaneous physical concurrence. Yet it defines that God does not operate them in the same way as good works, or not "properly and in their own right" as He operates good works, because He operates evil works

"permissively only," or with a purely permissive will, which of itself neither approves nor adopts the work as its own.

30. One may immediately say that the Council speaks of evil works formally, not materially. But against this: the Council speaks of Judas's betrayal insofar as God in some mode operates it. But God in no way operates it formally, for formal malice, if it is a mere privation, is incapable of terminating an operation; and if it is something positive, it is in no way attained by God's operation according to the Thomists. Therefore according to the Council God operates the betrayal materially only permissively. One may say again: permission and operation are not referred to the same thing; rather, operation is referred to the material element and permission to the formal. But against this again: when God operates something approvingly, properly, and in its own right, the approval, propriety, and character of being in its own right are referred to the same thing to which the operation is referred. Therefore, when God operates something "permissively," permission is referred to the same thing to which the operation is referred, for the adverb "permissively," no less than "approvingly," signifies the mode in which the will tends toward the term of the operation. It is urged: according to our adversaries, in an evil work God operates nothing which He does not operate properly and in its own right; for He operates only the material element of sin insofar as it is being, and this properly and in its own right, as they hold. But God does not operate a concrete thing merely permissively in which whatever He operates, He operates properly and in its own right. Therefore, etc. It is urged again: the created will does not operate malice in its own right, but regards it only permissively, for evil as such does not have a cause in its own right, as St. Thomas proves, q. 1, *De malo*, a. 3. The same applies to the act reduplicatively as grounding malice, since under this reduplication it is not desirable in its own right. Yet the created will properly and in its own right operates the evil work because it properly and in its own right operates the physical act, foreseeing the resulting malice. Therefore if God operates the same act properly and in its own right, likewise foreseeing the resulting malice although regarding it permissively, He will operate the evil work properly and in its own right.

31. It is proved 2º from the Fathers, first from St. Augustine, who often denies that evil volitions are from God. "For just as," he says in V *De civitate*, c. 9, speaking of God, "He is the creator of all natures, so He is the giver of all powers, but not of all wills; for evil wills are not from Him, since they are contrary to the nature which is from Him." And in *De spiritu et littera*, ch. 31, he says: "Nowhere do we read, 'There is no will except from God'; and rightly it is not written, because it is not true. Otherwise, which God forbid,

God would be the author even of sins if there were no will except from Him." He speaks similarly in XII *Confessiones*, ch. 11. Yet Augustine does not deny that all volitions, that is, acts of the volitive power, are from God physically concurring, as is clear from other passages and as the Thomists do not doubt. He therefore denies only that they are from God as author and cause in His own right, in such a way that God should simply be called their "giver," or that every volition should be "His proper work," according to the phrase of Trent. St. Augustine himself gives the reason frequently elsewhere from the fact that God wills evil volitions to occur only by permitting them to occur.

32. Nor does Augustine speak of a sinful volition reduplicatively insofar as evil. First, because he uses the bare term "will" or "volition," in which there is no reduplication of malice but rather a signification of physical and positive entity. If God were its author, Augustine's proposition, "Not every volition is from God," would be false and absurd, just as one would falsely and absurdly say, "Not every man is from God," because although the sinner as sinner is not from God, every man taken specifically and as regards entity is nevertheless from God. Second, because it is not the same thing to give malice as the reason, as Augustine does through "since" and "otherwise," and to reduplicate it. Thus one who said, "This painting is not by Apelles, because it is deformed; otherwise Apelles would be the author of deformed works," would not reduplicate the deformity or merely deny that the deformity was from Apelles, but would give a reason why Apelles was not the author of the painting as regards the physical positing of lines, colors, etc. Likewise one who said, "God does not command hatred of Himself because it is contrary to nature," would give the reason why God does not command hatred of Himself even taken specifically.

33. Next St. Bernard, *De gratia et libero arbitrio*, near the middle, speaks thus: "Among living beings it was given to man alone to be able to sin by reason of the prerogative of free choice. But it was given not so that he would therefore sin, but so that he might appear more glorious if he did not sin when he could have sinned. Nor," that man sins, "was the fault of the giver, but of the one abusing it, who turned to the use of sinning the very faculty which he had received for the glory of not sinning." Here the tendency of the decree which we described in n. 16 is graphically expressed. Therefore when God gives man the ability to sin, in which ability is included the decree applying Omnipotence, He gives it not only without intention of its use for sinning but with the intention that it not be so used; and for this reason it is not the fault of the giver, or the fact that man sins is not attributed to God as author. Nor does Bernard speak only of sin formally.

First, because man cannot otherwise avoid a sin of commission or have the glory of not sinning except by avoiding the act as regards its entity. Therefore if God gives the ability only with the intention of that glory, He gives it only with the intention that the act be avoided as regards its entity. Second, because man turns that faculty to the use of sinning, not indeed by loving sin formally, which, "insofar as such cannot be intended, nor in any way willed or desired," as St. Thomas says, q. 1, *De malo*, a. 3, but by loving a delectable good under cognition of a prohibiting law. Therefore the use of sinning which God does not intend is the love of such a good under such cognition, which love is undoubtedly a physical entity.

34. Moreover St. Anselm, *De casu diaboli*, ch. 28 and last ch., expressly discusses how that willing by which the devil departed from justice was from God. After considering it insofar as it is something physically good and similar to God, he establishes that "that willing was from God, from whom is everything that is something." But to explain that even thus it was from God not as author but as physically concurring with a permissive will, he adds that it was from God not as willingly given but as permitted to be seized. For he says generally: "Someone has from God not only what God willingly gives, but also what he unjustly seizes with God permitting. And just as God is said to do what He permits to be done, so He is said to give what He permits to be seized." These words certainly need no interpretation. Note only that "not willingly" is understood of spontaneity of good pleasure toward the external concurrence. Otherwise the permissive will itself is indeed spontaneous in God and most free, for God "does not permit unwillingly but willingly," as Augustine says in *Enchiridion*, ch. 100.

35. Finally, omitting others, our assertion is efficaciously confirmed from the doctrine of St. Thomas. For 1º an evil act is neither intended nor approved by God insofar as it is disordered and insofar as it is not intrinsically and antecedently ordered by God but only extrinsically and consequently upon its existence. But "an evil act, according to that which is from the agent, is disordered and is ordered by God only through supervening punishment or through some good elicited from it." Therefore an evil act according to that which is from the agent, and consequently according to its physical entity, is neither intended nor approved by God, and consequently is not caused in its own right. The consequence is legitimate, the major premise evident, and the minor premise is St. Thomas's, I, dist. 47, a. 3, ad 3. It is urged: God cannot in their physical being intend in their own right or love acts which are evil even specifically within the genus of nature, are disordered from the end according to their being, and are incapable of being ordered to a good end. But such acts are hatred of

God, despair of Him, and the like. Therefore, etc. The minor premise, which alone might be doubted, is St. Thomas's, cited dist. 47, a. 4, speaking of these acts: "It is clear that acts of this kind are evil even specifically within the genus of nature; hence such disorder cannot be removed from them. For it could not be removed by their being ordered to an end, since according to their being they are disordered from the end"; for otherwise the same thing would simultaneously be ordered and disordered. "Hence such acts are never subject to a divine precept." And for the same reason it plainly follows that they are never subject to God's good pleasure and intention. The same must be judged of other acts not so essentially evil, so long as the law prohibiting them is not removed, as the Angelic Doctor explains there. He preserves the fact that Abraham's will to kill his son was willed by God only because God then dispensed from the precept not to kill the innocent and added to the killing a new order which it previously lacked.

36. 3º "The will of man in some way disagrees with God's will, insofar as it wills something which God does not will it to will, as when it wills to sin," as St. Thomas says, q. 6, *De malo*, a. 1, ad 5. That the Holy Doctor speaks of human willing not precisely as regards malice but also as regards physical entity is clear, because he immediately adds: "And although in this way the will of man disagrees with God's will as regards the movement of the will, nevertheless it can never disagree as regards the outcome or event, because the will of man always obtains this outcome, that God fulfills His will concerning man," namely by punishing the sinner or converting him to repentance, etc. Therefore that disagreement is "as regards the movement of the will," which is certainly a physical entity; and God's will is not otherwise fulfilled in that movement except "as regards the outcome or event." This certainly would not be true if God's will of good pleasure were fulfilled also in the very positing of the movement as regards its entity. Hence you will gather that the Angelic Doctor also speaks of an evil act as regards its entity in I, dist. 47, a. 2, where he teaches that something occurs apart from every will of God's good pleasure, both antecedent and consequent; indeed, with respect to antecedent will, "it can occur both apart from it and against it." Yet "nothing can occur apart from permission or against it," because "permission regards the power of a cause as related to either of two opposites; hence neither opposite is against permission, but each is according to it." He speaks, I say, of the evil act also as regards its entity, first because of what has just been said; second because of an act so taken it is verified that "something occurs" apart from and against God's good pleasure, whereas malice as such does not come to be but results; third because both opposites, for example lying and not lying, are not according to

good pleasure but only according to permission, while the lie even as regards its entity is opposed to its own omission, which pleases God.

37. Our assertion is proved 3º by reason. God physically concurs with the act of sin in such a way that malice cannot be imputed to Him as though God Himself willed us to sin. But if God concurs with the act of sin as regards its entity as author and from intention, or with a will more than permissive, it follows that God wills man to sin and that this is imputed to God Himself. Therefore, etc. The major premise is certain by faith, and the minor is gathered from what was said against the Thomists above from n. 3. For either malice is identified with the act, and thus it is practically repugnant to will, procure, and produce the existence of an act comprehensively foreknown without likewise willing whatever really is that very act; or malice results from the act consequently and unavoidably, and thus it is likewise repugnant to will in that mode the positing of the act and not to will the malice as much as suffices for imputation, according to the principle, "He who wills the antecedent wills the consequent," which is understood at least of one foreseeing the unavoidable result of the consequent and nevertheless practically and procuratively willing the positing of the antecedent. The same must be said of the foundation of malice as such, or of the formality grounding malice, which formality either is identified with the material element of sin or results from it consequently and unavoidably.

38. Confirmation 1º: "Someone is blamed and rendered culpable from the fact that he voluntarily operates a disordered action," as St. Thomas says, q. 1, *De malo*, a. 4. Therefore if God voluntarily operates, namely with voluntariness of approval, the disordered action of a creature, blame and fault will redound upon God Himself. One will immediately reply that God neither operates nor wills such an action insofar as it is disordered. But this does not escape the difficulty. For according to St. Thomas in the same place, ad 2, even from the creature "the act itself is not willed insofar as it is disordered, but according to something else which the will seeks and through which it falls into the aforesaid disorder." Therefore although God does not will the act insofar as disordered but according to something else, namely according to physical goodness, if nevertheless He seeks it in this sense He will culpably fall into the aforesaid disorder. Nor may one say that the creature at least wills the foundation of malice as such. For the same reasoning applies to this as to malice, since the foundation of malice precisely as such is not lovable except on account of malice. What sinner, if asked why he wishes to act proudly, lie, steal, etc., would answer, "Because this act grounds the malice of sin"?

39. Confirmation 2º: God cannot by a will of good pleasure will that a creature's vital and free action, such as, for example, a volition of lying, exist as regards its entity without simultaneously willing that it be produced by the creature and freely determined; this is evident. But that action, when cognition of the law is present in first act, cannot be produced by the creature and freely determined as regards entity except by sinning. Therefore if God wills the existence of that action as regards entity while cognition of the law is present, He wills it to be produced by the creature by sinning; for He does not will it to be produced in a chimerical mode. Therefore He wills the creature to sin. Both consequences seem legitimate and the minor premise undeniable. Otherwise the creature could freely posit without sin the entity of a volition of lying together with cognition of the law prohibiting lying; hence it could also posit it with the intention of rendering homage to God and conforming itself to His good pleasure. This would be a wonderful and abbreviated way of obtaining all pleasures, however prohibited, not only without sin but with merit; for those pleasures delight precisely as regards entity, and not otherwise.

40. Confirmation 3º: the creature has no other liberty regarding the malice of a sin of commission than regarding the physical entity of the act. For once the act is posited as regards entity, no indifference remains regarding malice, nor can the will omit the malice in any way, as is now supposed; otherwise the absurdity just mentioned could occur. Therefore it is the same thing for liberty to be exercised concerning the entity of the act as for it to be exercised concerning malice. But God cannot approve that the entity of a volition of lying exist intrinsically free, or in circumstances of liberty, without approving that the creature exercise liberty concerning that entity. Therefore neither can He do so without approving the exercise of liberty concerning malice. It is urged: God physically produces the creature's very free determination to the material element of sin. Therefore, if God loves whatever He physically produces, as our adversaries hold, He also loves that determination. But the creature's free determination to the material element of sin together with cognition of the law is inseparably and inseparably by precision a free determination to sin. It therefore follows that God loves the creature's free determination to sin, and consequently wills the creature to sin.

41. Here it must be noted that, although our adversaries put forward those reduplications, "the act of sin insofar as it is an act," "insofar as it is an entity," or "according to physical being," in order thus to preserve that the act insofar as produced and willed by God does not express or imply malice, nevertheless they cannot deny that God produces, and consequently loves

according to them, the act not only taken generically but also specifically and individually, and indeed as free to the creature. From this our arguments are taken. For although the physical being of an act does not imply formal malice if it is not free, it does imply it if it is freely posited. Likewise, although the reduplication "as act" or "as entity" precisively abstracts from moral goodness and malice if it reduplicates only the generic aspect of act and being, in which only transcendental goodness appears, it is otherwise if it reduplicates the act and entity specifically and individually. In that case it already possesses either identically or inseparably the aspect of moral evil. This is the doctrine of St. Thomas, q. 2, *De malo*, a. 4.

42. But that God is not the author and cause in His own right of such an act as regards its entity if He concurs toward it without intention and without any affection of approval, our adversaries do not seem to deny, and it is clear from what was said in disp. 2, c. 1, n. 10, where for a cause in its own right we required that it exercise influx with some inclination, either innate or elicited. St. Thomas expressly teaches this in II *Physic.*, lect. 8, saying: "Just as the effect in its own right of a natural cause is that which follows according to the exigency of its form, so the effect of a cause acting by purpose is that which occurs from the intention of the agent." Likewise, q. 1, *De malo*, a. 3, he says generally: "That which proceeds apart from the intention of the agent is not an effect in its own right but an accidental effect." The same is gathered from Aristotle, II *Physic.*, text 67, where he gives no other notion of a cause in its own right than that it is that through which answer is made to the question "On account of what?" or "why does the effect exist?" But a cause exercising influx apart from intention and inclination is not for the effect a cause "why it exists," since this expression by its terms implies a cause determining or intending the effect to exist. Moreover, that which someone unjustly seizes from God, or that which is from God not as willingly giving but as permitting it to be seized, certainly is not from God as author and cause why it exists. But according to St. Anselm cited above, n. 34, the evil act, even as regards its entity, is from God in no other way. Therefore, etc.

43. Moreover God so permits the existence of an evil act that He simultaneously seriously prohibits it. Hence the evil act is from God according to permissive will and simultaneously against prohibitive will, which St. Thomas in I, q. 47, a. 2, calls "antecedent" will; and consequently it is not only apart from intention but positively against the intention and will of God, who is reasonably unwilling. This alone is signified by our authors when they say that God concurs with an act of sin "unwillingly, as though unwilling, and as though compelled"; not indeed "efficaciously unwilling,"

for then concurrence would be impeded, but nevertheless "seriously unwilling," that is, disapproving and prohibiting His external concurrence as to be determined by the creature. Nor is He simply unwilling, and much less simply compelled, for He would not concur unless He spontaneously and most freely willed to permit the external concurrence by indifferently applying His Omnipotence. Rather these expressions contain the qualifying "as though," which diminishes and renders the mode improper, insofar as that concurrence is truly posited against God's prohibitive will. "Great are the works of God," says Augustine in *Enchiridion*, ch. 100, "exquisite according to all His wills, so that in a wonderful and ineffable way that which is against His will is not done apart from His will; because it would not be done unless He permitted it, and He does not permit unwillingly but willingly."

44. Therefore the act of sin is from God not only without intention but also with God seriously unwilling and prohibiting; and this certainly removes far from God the perseity of attribution and imputation. Nor does physical and immediate concurrence stand against this. For when the Apostle says in Rom. 7:20, "But if I do what I do not will, it is no longer I who work it," he certainly presupposes that he physically does it, yet denies that he operates it, namely properly and in his own right, or imputably. Likewise the priest who gives the Eucharist to a hidden sinner publicly asking for it physically concurs toward a sacrilegious communion, and yet does not concur imputably if he gives while detesting and disapproving it. The example of a man whose hand another used against his will also pertains here. For, as St. Thomas says, q. 2, *De malo*, a. 2, ad 6: "The act of one whose hand another used to kill would indeed be disordered, but it would not possess the aspect of fault except in relation to the one who uses the other's hand. Likewise the external act of a member possesses deformity, but it does not possess the aspect of fault except through being from the will. Hence, if will and hand were two persons, the hand would not sin, but the will would sin, not only through its own act, which is willing, but also through the act of the hand which it uses." We adduce these examples so that it may be clear that the immediate physical concurrence of some cause can stand without imputation, not so that the examples correspond in every respect to the present matter. For we know there is a disparity: 1º because the created will presupposes in God a most free decree permitting external concurrence; 2º because our will does nothing beforehand in Omnipotence, nor moves it by any impulse or command; 3º because Omnipotence physically effects the very determination by which the creature freely uses God's external

concurrence. All these things are otherwise in the examples adduced, as will be clear to one who considers them.

45. One may say: Omnipotence will at least be a purely physical cause in its own right with respect to the act of sin, because it cannot physically produce that act without at least an innate inclination. But I deny the assertion together with the reason attached. For divine power has no innate appetite for operating *ad extra*. First, because, as we said from St. Thomas, treat. 1, d. 3, c. 1, an innate appetite exists only toward a good connatural to the one desiring, or fitting according to nature, so that the nature of the desiring thing either needs such a good or at least is better and more advantageously disposed with it than without it. But God neither needs operation *ad extra* nor is He better or more advantageously disposed with it than without it. Second, because "natural appetite is nothing other than an ordering of certain things according to their proper nature toward their end," as St. Thomas says in I *Physic*., lect. 15. But God is certainly not ordered according to His proper nature toward operating *ad extra*, much less toward it as His end. Hence some Thomists falsely say that active power generally is an innate inclination toward an effect. This is true only of created power with respect to an effect conformable to the end of the cause. Otherwise, since the active power of our soul extends to many acts contrary to its end, it cannot be an innate appetite for them. Hence St. Thomas, I, dist. 39, q. 2, aa. 1 and 2; likewise I-II, q. 94, a. 3, and often elsewhere, recognizes in the rational soul only an innate inclination toward upright acts conformable to reason and virtue.

46. But here it must be carefully observed that "accidental cause" is taken in many ways. For 1º it is taken for a cause which exercises no influx at all but is accidentally joined to an influencing cause, such as musical skill in a builder; or also for a purely occasional cause, from whose proper effect another effect occasionally results, yet contingently and apart from its influx, in which sense the builder of a house is said to be the cause of a quarrel or dissension arising over that house. 2º It is taken for a cause not immediately exercising influx, for a remote cause is commonly called an accidental cause. 3º It is taken for a cause immediately exercising influx indeed, but not so necessary as to be a cause without which the effect could not occur, because the effect would exist without it. Thus when several persons are present ready and willing to kill Peter, it is said to be accidental that Peter is killed by one rather than another; nor does the killing depend upon such a cause in its own right with the perseity of need or necessary dependence. 4º It is taken for the cause of a fortuitous effect, that is, of one posited by chance and unexpectedly, or apart from every foresight of the

agent, as if someone kills a man thinking him to be a beast. 5º And most frequently it is taken for a cause acting apart from intention; in purely physical causes the place of intention is held by exigency or innate inclination, as St. Thomas teaches in II, dist. 38, q. 1, a. 3, ad 2. Such a cause is never a cause in its own right by the perseity of attribution and imputation of the effect, or by the perseity of a cause "why it exists," or "on account of which it exists," as is clear from what was said in n. 42. This is the perseity implied antonomastically by "cause in its own right" and by the name "author" properly and absolutely.

47. Hence you will gather that a cause in its own right, as opposed to an accidental cause, can be taken in as many ways. Nevertheless, although a cause possesses the perseities opposed to the first four modes, if every intention and inclination is lacking it will not absolutely and simply be a cause in its own right nor the author of the effect, because it lacks the perseity of attribution and of a cause "why." This is clear from the example of the priest mentioned in n. 42, who, although he gives the Eucharist in its own right by perseity of physical action and immediately, and likewise by perseity of a cause without which the sacrilegious communion cannot occur and by perseity of foresight, is nevertheless not absolutely a cause in its own right of the sacrilegious communion. It is also clear from the example of a man who, fleeing an unjust death otherwise unavoidable, passes over a child lying in the one narrow road. For although he possesses the other perseities now enumerated, nevertheless the child's death is not attributed to him nor caused by him absolutely in its own right, but accidentally, because it is caused apart from his intention. Hence that principle of St. Thomas, q. 1, *De malo*, a. 3, always holds: "That which has a cause in its own right is intended by its cause; for that which proceeds apart from the intention of the agent is not an effect in its own right but an accidental effect." Add that according to the Thomists the divine majesty aggravates the offense of sin and constitutes it simply infinite within the genus of formal cause, whose causality is more intimate and immediate than efficient causality. Yet although it is an immediate cause and a cause without which that gravity cannot exist, and possesses infinite foresight, it is not absolutely a cause in its own right of the gravity and offense of sin as infinite; otherwise it would be attributed to God as author that the gravity of the offense was such and so great, because He causes this effect apart from His own determination and intention.

48. Therefore, when we deny that God is a cause in His own right of the evil act as regards entity, we do not exclude the first four modes of causing in one's own right and not accidentally. Rather we entirely presuppose

physical and immediate influx together with foresight and with the perseity of a cause without which the effect cannot exist, which is the perseity of need and essential dependence on the part of the effect, dependence, I say, not of just any sort but founded upon the aspect or title of being, and consequently regarding God as universal cause. We exclude only the perseity of intention and attribution. Hence this proposition, "God is not an accidental cause of the evil act as regards entity," must always be distinguished thus: insofar as "accidental" excludes only the perseity of attribution and of a cause "why," I deny; in another sense, I grant. It is more correct to say that God is a purely permissive cause of that act, namely by the permission proper to the first cause, which implies non-withdrawal of physical and immediate concurrence and presupposes foresight and the perseity of a cause without which the effect cannot exist, in the mode of a universal agent.

49. Finally, from what has been said thus far it is easily deduced that God is the author and cause in His own right of a good act of a free creature, because although He does not immediately determine it, He nevertheless wills and intends it, both through counsels and precepts, through the decree conferring the other created co-principles and aids, and through the very decree applying Omnipotence to concur, as we saw above.

CHAPTER IV.
Opposing Difficulties Are Resolved.

We anticipated several objections in the preceding chapter, both in the preliminary remarks and while explaining our position. Others, which directly support physical predetermination, we shall answer in the last chapter. Now.

Against the First Assertion.

1. It is objected: an indifferent decree applying Omnipotence is repugnant to God; therefore the compatibility of created freedom with God's simultaneous concurrence cannot be preserved through it. The antecedent is proved: because several absurdities follow from such a decree. It follows, 1º, that God subjects and gives us His Omnipotence; since, by leaving to us the determination of His concurrence, He gives us the power to use the Divine power at pleasure and to determine it to the production either of a good or of an evil act; no otherwise than one who hands his hand over to another so that the latter may form with it whatever letters he wishes subjects his hand

to another. But this consequence incurs the censure of Innocent XI, who condemned those two propositions: "God gives us His Omnipotence so that we may use it, as someone gives another a book or an estate"; and, "God subjects His Omnipotence to us." It follows, 2º, that God concurs in second act blindly, ignorantly, and fortuitously, as is clear from that same example of one handing his hand over to another. It follows, 3º, that it cannot be reckoned to God's praise that we act well, just as it is not reckoned to His blame that we act badly; for God determines neither, but leaves both to our choice.

2. It follows, 4º, that God abdicates from Himself dominion over His concurrence and over our acts, and transfers it to us, because He deprives Himself of the power of acting from His own determination and places Himself under the necessity of doing whatever pleases us. It follows, 5º, that God concurs as a subordinate and dependent cause, because such is a cause that concurs only at the will of another and from that other's determination. And hence it follows, 6º, that God does not concur toward our determination, because He waits for it in order to concur and concurs only on condition that our will determine itself. It follows, 7º, that our will previously does something in Omnipotence; for this is proper to a cause determining another to act. It follows, 8º, that Omnipotence executes something without a command of the Divine will; for that decree is not a command. But the consequence is against St. Thomas, *Summa Theologiae* I, q. 25, a. 1, ad 4, who says that in God "power conveys the notion of a principle executing what the will commands." Hence God's Omnipotence will be an executive power with respect to the created will, like the power of speech, locomotion, etc.

3. I answer by denying the antecedent, and in the proof I deny all the consequences. The first of them is poorly proved from the fact that such a decree leaves to us the determination of the external concurrence toward a good or evil act. For that subjection and gift are utterly absurd; yet the leaving of the determination cannot be denied while preserving the notion of freedom and the authority of the Fathers, especially St. Thomas, as we saw in the preceding chapter. St. Thomas asserts it in a thousand places, but let him now be heard in II, dist. 28, q. 1, a. 1: "Man would not possess free choice unless the determination of his own work belonged to him, so that by his own judgment he might choose this or that." But if man determines his own work, he also determines God's concurrence toward it rather than toward the opposite. One may object: the Thomists do not deny that the determination of its own work is left to the creature, but they hold that it is posterior to God's decree, which is not indifferent but predetermining. Yet

the predetermining decree, whatever may be said of its existence, of which in the following chapter, cannot be that which applies Omnipotence, because the applying decree pertains to the first act of freedom and belongs to the power to act. Although some recent authors seem to deny this, the more weighty Thomists commonly teach it, e.g. Albelda, disp. 97, sect. 3, and Godoy, disp. 67, *De praedestinatione*, n. 90; it is also sufficiently clear from what was said in the preceding chapter, and perhaps will be proved more fully in the following chapter. But nothing pertaining to first act, or to the free power to act, entails predetermination, as is also conceded among the Thomists. Therefore the applying decree must necessarily be indifferent, as we now maintain.

4. Moreover, from this leaving of the determination it does indeed follow that God subjects His concurrence to us, but only by a subjection of proximate determinability, not His internal concurrence but the external concurrence, or concurrence in second act, and not all of it, but only that which is identified with the action of the free creature. This subjection, once the identity of God′s concurrence and the creature′s action is supposed, which remains sufficiently proved in chapter 2 and is conceded by many Thomists, cannot be denied unless dominion over its own acts is denied to created freedom. Certainly the operation of a free nature is subject to its dominion; but "the very operation of nature is also an operation of the Divine power," as St. Thomas says, *De potentia*, q. 3, a. 7, ad 3. Therefore such an operation of the Divine power is subject to the dominion of the free creature. Yet from this there does not follow a subjection of Omnipotence, much less a gift of it, such as is absurdly asserted in the condemned proposition. For, first, this operation is subject to us only by a subjection of determinability to existing or not existing, which certainly is not carried over to Omnipotence.

5. Next, the subjection of such an operation arises from God′s free concession. Not from necessity, but from condescension, He grants the creature dominion over it, not dominion of just any kind, but one revocable at will, and not adequately distinct from God′s own will, but intrinsically constituted by it. He grants it, I say, not as though manumitting or emancipating the created will, but in such a way that He keeps both it and its operation subject and dependent in being, in being conserved, and in acting or being acted upon: both upon Omnipotence as exercising influence in the manner of a universal cause, and upon the Divine will, which by the mere suspension of the free decree can take away the creature′s dominion and prevent the operation. It likewise remains dependent upon and subject both to the dominion of jurisdiction, whereby God can command or prohibit the

operation, and to the dominion of ownership, whereby God can use the operation at pleasure or do with it whatever He wishes without injury to another, rewarding or punishing it, or ordaining it to whatever ends He chooses. To this also pertains its subjection to assisting providence, or to the power of infallibly bending our will toward good through congruous aids, or of permitting sin by bestowing a merely sufficient aid. But the subjection of some operation of Omnipotence to a dominion of the creature freely and revocably granted by God, constituted through God's own will, and in addition actually dependent under so many titles upon, and subject to, the dominion and power of God, from which Omnipotence itself is inseparable, is not a subjection of Omnipotence, as is evident of itself. Therefore, etc.

6. Hence the example of a gift or voluntary subjection among men is of no use to the opponents, for although such a thing is freely granted and entails an exercise of freedom, it is nevertheless a true subjection and gift. It is of no use, I say, because, to omit other disparities, in our case there is not merely a free concession, but one revocable at pleasure, which moreover keeps the very power that it grants to the creature perpetually dependent upon the power of the grantor and perpetually subject to His dominion of jurisdiction and ownership. Under these conditions, even among men, a subjection would not subject the person, nor would a gift remove dominion from the giver. The example of one handing over his hand to another for writing is likewise of no use: both because such a handing over involves a servile and instrumental mode of acting, namely, through the previous impulse of another impressed upon the hand, a mode of acting far removed from Omnipotence; and also because the hand neither effects the other's free determination nor retains it subject and dependent upon itself, as Omnipotence retains the creature's power and determination.

7. But if one should still infer that God, although freely, out of condescension, and under the conditions just explained, nevertheless truly obliges Himself and His Omnipotence through an indifferent decree to furnish service to the creature, I answer by denying the consequence. For service denotes a ministry, or an action proper to a servant or common to a servant, not an action proper to the Prince alone as such. Thus, if a Prince out of condescension obliges himself to make a subject a Count or Duke whenever the subject himself wishes, he does not thereby oblige himself to furnish service to the subject, because making someone a Count or Duke is not an action of a servant, but of the Prince alone as Prince. So it is in our case. For to concur toward our acts under the title of being and under the aspect of being is so proper to God alone as first Cause and supreme Prince that it is common to no creature.

8. But it may still be replied: at least God's operation is subjected to the creature, as we concede; therefore God is subjected to the creature in acting, whether as acting or in the being of an agent. But this alone was intended by the authors of the condemned proposition, for it could not have entered their minds that God was subjected to us in being. Having conceded the antecedent concerning the subjection of determinability, and concerning an operation not universally but restricted to the acts free to us, which not even the Thomists can deny without opposing St. Thomas, as we saw in n. 4, and likewise concerning a subjection arising from God's free condescension, I deny the consequence, even concerning God as acting through such an operation. For reduplication, according to common usage, denotes that the predicate truly belongs to the subject taken specifically, although not by reason of itself but by reason of the form that is reduplicated, as when we say: "Man, as having Grace, is a friend of God," or "as seeing God, is blessed," or "as sinning, is deserving of punishment." Yet not everything that belongs to an operation or form can be verified of the cause or subject, even under reduplication. Otherwise it could truly be said that the soul, as operating or in operating, is a modal entity; and, since our operation is also an operation of the Divine power according to St. Thomas, that the Divine power, as operating and in operating, is modal, accidental, and the subject of malice. Likewise God, as offended, would deserve hatred; and as known and loved by us, would be imperfect and finite, and therefore would not be God. Likewise, since the supernatural cognition and affection whereby God anticipates us are God's calling and inspiration, God, as calling and inspiring, would be physically produced by us and would possess the other imperfections proper to those acts.

9. Omnipotence, therefore, is incapable of receiving from its external operation the denomination "subject," "subordinate," or "dependent in acting," because such a denomination supposes a cause which either receives its power from another, or is applied by another's impulse or command, or by its own nature is destined to be the instrument of another, or at least needs another's concurrence because of the incompleteness and limitation of its power. None of these belongs to Omnipotence. But to operate from another's determination does not of itself imply the subjection or subordination of the one operating. For the patient, according to the variety of its disposition, determines the agent; the species of the object determines the intellect; the will determines the habit of charity; and universally the particular and inferior cause determines the influence of the superior and universal cause, as St. Thomas often teaches, specifically concerning the action and influence of the first Cause, *Summa contra Gentiles*

III, c. 66; *De potentia*, q. 1, a. 4, ad 3; *De veritate*, q. 5, a. 9, ad 10. Yet no subordination intervenes in these cases. This is true with still greater force even in God, when the necessity of acting on some occasion from another's determination arises from a supposition free to the agent himself and removable at pleasure. Thus, according to the Thomists, once a physically predetermining quality is posited, God can no longer suspend simultaneous concurrence. And according to them, once the malice of sin is posited, which certainly is posited only through the creature's determination, God is necessitated not to conserve habitual grace in such a creature, likewise to aggravate the offense in the genus of formal cause, and likewise, under the present providence, to inflict eternal punishment if the sin is final. So too, once the promise of Glory is presupposed, God is then bound, through the free determination of the meriting creature, to confer Glory. Finally, to omit other examples, once the general power of working miracles granted to Christ's humanity is supposed, Omnipotence is then ready to effect any miracle at the will or determination of that humanity. Yet in these cases there is no subjection of God or Omnipotence, either to the predetermining quality, to the creature's malice or merit, or to the humanity of Christ the Lord. Therefore, with these examples kept before one's eyes, the entire objection is met.

10. The second consequence is frivolous, since the opponents know perfectly well that, according to our authors, an indifferent decree presupposes most certain foreknowledge of the creature's choice if such freedom is granted to it, whether that foreknowledge is middle knowledge or knowledge resting upon a conditional decree, which is of no concern to us at present. I therefore ask the opponents whether God, when granting a just man the freedom to sin, blindly and fortuitously exposes Himself to the event of malice being posited, which certainly is determined by the creature alone, in which event God is denominated offended and is metaphysically bound not to conserve habitual grace and to aggravate the offense? The third consequence can be no more serious, since it is equally well known that, on our principles, God, from the intention of our good work, grants us our entire freedom, applies Omnipotence, and directs and inclines us by precepts, counsels, illuminations, and other various and wonderful means. Moreover, whenever we act well, this very thing is specially given to us by God, who in the sign of His freedom deliberately chooses aids which He knows to be efficacious, and also efficaciously predefines the good work, as most of our authors hold. But this most fully suffices for God to be the Author of our good work and praiseworthy in it, not indeed with the praise of one immediately determining an act free to us, for in our position this

praise is no less repugnant to God than the praise of one meriting, obeying, being humble, etc., through our acts, but with the praise of one who of Himself intends, produces, and gives the act in the manner stated, which belongs to God alone. The soldiers′ victory is reckoned to the praise of a commander who merely directs, commands, and exhorts. What if the commander, in addition, with the intention of victory, furnished the soldiers their strength and arms and immediately concurred with each of them toward the act of fighting?

11. The fourth consequence unjustly infers an abdication of Divine dominion. This can be inferred much more plausibly against the opponents from the fact that God, in granting the creature the power to sin, deprives Himself of the power of conserving habitual Grace from His own determination and places Himself under the necessity of destroying it at the mere pleasure of the creature. I ask whether, when God grants us the power of living, loving, and meriting through our own act, He abdicates that power from Himself? You will immediately deny it, because God never had such a power formally in Himself or for Himself, but possesses it only virtually and eminently, insofar as He can produce it and give it to a creature. The same answer must therefore be made here. God never formally had in Himself or for Himself the power or dominion of immediate determination toward an act free to us, that is, in the composite sense of our freedom, because such dominion is proper to created free choice as such, and as defectible or capable of meriting and demeriting; consequently it is imperfect and repugnant to God, just like the power of loving and meriting through that act. God therefore does not abdicate such dominion from Himself when He produces it from His virtual and eminent containment and gives it to us. The dominion that God has over our acts and over His external concurrence toward them is therefore the dominion of jurisdiction and ownership spoken of in n. 5. It is likewise the power of infallibly inducing a good act through congruous aids or permitting an evil one. It is furthermore the power either of necessitating, or, what for us is the same, immediately determining, our will to a determinate act, or of permitting the will itself freely to determine, although God always retains the freedom to cease concurring through the mere withdrawal of the indifferent decree, so that necessitating and permitting are two extremes or opposite exercises of the same dominion and power.

12. God abdicates none of these dominions from Himself, nor does He transfer them to us. For God does not abdicate the dominion of immediately determining or necessitating, concerning the others there is no present doubt, but merely does not will to exercise it, choosing rather the extreme

opposed to that necessity, namely, to leave free determination to us. Thus God does not abdicate from Himself the dominion of annihilating an Angel when He decrees to conserve him; He merely does not will to exercise such dominion, choosing rather to leave the Angel in the state of existence. Hence the very leaving to us of free determination, or the very granting of our dominion, is an exercise of Divine dominion not abdicated, just as leaving an angel in the state of existence is an exercise of Divine dominion. God therefore deprives Himself of no power of acting from His own immediate determination. For God did not possess, nor could He possess, the power of acting human acts in this way in the composite sense of our freedom; but He certainly retains the power of acting those acts in such a way by removing our freedom, although He does not will to use it. As for His thereby placing Himself under the necessity of performing the act that pleases us, this is a necessity that God freely imposes upon Himself through an indifferent decree, and is no more absurd than the necessity of not annihilating an Angel arising from a decree to conserve him, or the necessity of conferring reward or punishment arising from a decree to reward or punish on condition that the creature chooses to merit or to sin. Indeed, it is much easier than the necessity asserted by the opponents of destroying habitual Grace and aggravating the offense upon the supposition of the malice of sin, toward which God in no way determines.

13. From what has been said one may gather how the creature′s dominion over its own acts is compatible with God′s dominion over the same acts. The dominion of immediate determination, which belongs to the creature alone and consists in the power immediately to posit or omit an act, or to choose one rather than another, is in no way destroyed by God′s dominion of jurisdiction and ownership, as is evident; nor by the power of bending the hearts of men wherever He wills, as our theologians show; nor again by the dominion of necessitating the created will or leaving the determination to it. For this dominion is not exercised through the first extreme but through the second, so that this exercise is presupposed in the very first act of created freedom. And even insofar as that dominion regards the extreme of necessitating, it is not lost, but simply is not exercised because God does not will to exercise it. Hence one may consequently gather how our action and free determination, which is at the same time the concurrence and action of God, is so subject to us that at the same time, and still more, it remains subject to God′s power and dominion, although of another kind and of a higher order.

14. The fifth consequence has already vanished above. But the proposition, “A cause that concurs only at the will of another and from the

determination of another is a subordinate and dependent cause," must be distinguished thus. If it always conducts itself in this way, I grant it. If only sometimes, I further distinguish: if this proceeds from its own nature or need, I grant it; if only from free condescension, while at the same time retaining superiority and dominion over the other's power, will, and determination, I deny it. The basis of these distinctions is clear from what has been said. The sixth consequence suffers from equivocation. It is one thing for God to concur from our determination; it is another for Him not to effect that determination but to presuppose it before the concurrence. The latter is false and absurd and has been stated by no author of our School. The former merely denotes that the action of the created will, which is at the same time God's action, is not a determination with respect to God, but with respect to the created will; that is, it does not denominate God "determining," but attributes this denomination to the creature alone, just as through such an action it attributes to it the denomination "formally living, loving, meriting." The reason is that the denomination "determining" belongs only to that principle which, in the prior sign of freedom, is presupposed to be proximately capable of omitting the action or eliciting its opposite. It does not belong to a principle which, although it truly exercises influence, is either incapable of such a power, as is an acquired or infused habit, or is understood in that prior sign as unwilling to use that power, but rather as willing to accommodate itself to another principle. God conducts Himself in this latter way in the prior sign of our freedom by virtue of the indifferent decree. From this diverse character or preparation of the principles it also arises that the same action of both attributes to one rather than the other the denomination "living," "meriting," etc.; just as in physical things the same causality, which in reality is action and passion, makes and denominates one of its principles "agent" and the other "patient."

15. Therefore, just as a habit does not concur toward free love except from the determination of the will, although that determination is effected by the habit and denominates it "agent," but not "determining" or "loving," etc., so must we reason concerning Omnipotence as applied through an indifferent decree. Accordingly, we most willingly concede the statement of St. Thomas, *Summa Theologiae* I, q. 105, a. 1, ad 3: "The very fact that secondary causes are determined to determinate effects is given to them by God." Yet in free causes we deny that it is from God as determining, just as the very fact that we merit is given to us by God, yet is not from God as meriting. That a free cause is determined, therefore, is given to it by God as acting; and, if the determination is good, moreover by God as intending, assisting, and predefining in the sign of His own freedom. Hence some

ineptly object that if God effects a determination in our will, He determines the will, just as one who effects whiteness in a subject whitens the subject. Ineptly, I say, for it would follow equally that the habit determines the will. The denomination "whitening," since it is absolute, requires only the effecting; but the denomination "determining" is relative and, beyond the effecting, requires a certain character or preparation of the efficient principle. Hence the proposition, "To effect a determination in the will is to determine the will," must be distinguished thus: to effect it in just any manner, I deny; to effect it in the manner of a principle which, in the prior sign of created freedom, is prevented neither by itself nor by another from omitting the action or eliciting the opposite, I grant.

16. Consequently, whenever it is said that God "waits for" the creature's determination in order to concur, the expression is improper and should not be admitted unless it means precisely God's accommodation to the creature in the prior sign of freedom. But the expressions, "God does not concur unless the creature determines itself," "God concurs if the creature determines itself," or "because it determines itself," are not properly conditional, since the condition is not distinct from the conditioned; nor properly causal, for the same reason; nor do they indicate a true priority. They signify merely an accommodation in first act and the diverse character and previous preparation of the principles cooperating through the same action. This is manifest in a habit, whether acquired or infused, concerning which we speak similarly with respect to the will. Thus it is also commonly said: "The created will can sin if it wills"; or, "it can love God if it wills"; indeed, "it can determine itself if it wills," and "it determines itself because it wills"; and according to Trent, "it can dissent from grace if it wills," or "consent if it wills." Here it is evident that the condition "if it wills" is not prior to the conditioned nor distinct from it, just as neither is the reason "because it wills."

17. The seventh consequence is inferred without foundation. For what does the will previously do in the habit of charity which it determines to act? Such a previous action, therefore, is required only for a cause which is determined in the manner of a mechanical instrument, or which is impelled or moved by another toward an action distinct from the determination itself. The eighth consequence is no better inferred. For the indifferent decree truly is a "command" in the sense in which this name is said of God's will with respect to Omnipotence, namely, not in the strict but in the broad sense, insofar as it denotes a free act applying Omnipotence to act or to concur according to the character and condition of secondary causes, so that it is a determining application for necessary causes and an application

leaving determination to free causes. Certainly, since God is His Omnipotence, He cannot properly command it unless He properly commands Himself, which is repugnant. Nor does it follow that Omnipotence is an executive power with respect to the created will; for this would require that by its nature it be subjected to our will and depend upon it in acting, which on our principles is utterly foreign to Omnipotence.

18. Finally, note, 1º, that the created will does not "apply" Omnipotence to concur, because application pertains to first act and is a condition on the side of the cause, as is clear in fire applied to burn and in an object applied through the intellect to exercise final causality. Therefore Omnipotence is applied only through its own indifferent decree. Note, 2º, that neither does the created will properly "use" Omnipotence, because "the use of any thing entails the application of that thing to some operation," as St. Thomas says, *Summa Theologiae* I-II, q. 16, a. 1. Therefore, since the created will does not apply Omnipotence to act, neither does it consequently use it. Note, 3º, that the expression, "God is determined by the creature to concur," or "He concurs as determined by the creature," although customarily admitted, does not necessarily follow from the fact that God's external concurrence is determined by the creature. For, as we showed above, not everything that belongs to an operation also belongs to its cause. Hence the expression must either be rejected or distinguished thus: God concurs as determined by the creature, by a determination of power in first act, I deny; by a determination of concurrence in second act, I further distinguish: by a determination presupposing God's condescension and free accommodation, I grant; otherwise, I deny.

Against the Second Assertion.

19. It is objected, 1º: if God physically concurs toward an act of sin, He loves such an act and wills it to exist, according to Wis. 11: "You love all things that are, and hate nothing of the things You have made"; and according to St. Thomas, *De potentia*, q. 1, a. 6, God cannot "do what He cannot will"; and *Summa Theologiae* I, q. 19, a. 12, ad 2: "God's operation is always the same as the will of good pleasure." St. Augustine agrees with this in *Enchiridion*, c. 102, saying that God does nothing except willingly. But God is the Author and essential cause of an effect which He produces with inclination and love. Therefore, etc. It is confirmed: an act of sin, insofar as it is a being, is good, for being and good are convertible; but God is the Author of every good; therefore He is the Author of that act insofar as it is a being. Hence St. Augustine, *De diversis quaestionibus LXXXIII*, q. 21, says:

"God is the Author of all things that are, which insofar as they are, are good." Add that the good as such is intrinsically lovable, and that every created goodness is a likeness and participation of the Divine goodness, which likeness and participation God wills and loves, as St. Thomas teaches, *Summa contra Gentiles* I, c. 96, and *Summa Theologiae* I, q. 20, a. 2, proving from this that God loves all existing things and hates no thing, because He wills good to each thing, namely a likeness of His goodness; but to will good is to love.

20. To the objection I deny the assumption, which is ineffectively proved by the authority adduced. For the text of Wisdom speaks of things which God made as Author and which can properly be called works of God, namely all things which God makes by Himself alone and those which He makes by concurring simultaneously from intention. But those works which God physically operates not properly and essentially, but only permissively, just as they are not God's proper works according to Trent, are likewise not properly said to be made by God, nor is the phrase "the things You have made" properly and simply verified of them. Hence the great Augustine, cited in the preceding chapter, said that God is not "the giver of all wills," and that it is not truly said, "There is no will except from God," namely as Author. And in *Confessiones* XII, c. 11, he speaks thus: "You said to me, Lord, with a strong voice in my inner ear, that all natures and substances which are not what You are and yet are, You made; and this alone is not from You: what is not, and the motion of the will away from You, who are, toward that which is less, because such a motion is fault and sin." Observe that Augustine excludes from the words "You made" not only that which is not, but in addition the evil motion of the will. There he speaks of the motion as regards its entity, for as regards the privation of rectitude he had already included it in "that which is not." The other things by which we proved the second Assertion in the preceding chapter support this.

21. One may object: on our exposition the proposition of Scripture is rendered identical and nugatory; for it is the same thing to say that God loves all things which He made as Author and that He loves all things which He made by loving them, since for us to make as Author is to make by loving. But this amounts to nothing. For just as the proposition, "Whatever you do as a man, you do as a rational animal," is not identical, because although man and rational animal are the same in reality, they are not the same in expression, since they differ as definition and thing defined, so it is in our case, where the name "Author" is in a certain way defined when God is said to make by loving, or from intention. Add that the text may be explained of subsisting things, or of substances made by God. First, because it is so

explained by St. Thomas, *Summa contra Gentiles* I, c. 96, where, after proving that God loves all things produced by Him "and hates no thing, since He is the cause of all," and confirming this from the same text of Wis. 11 objected against us, nevertheless, in order to meet the objection from Zech. 8, where God is said to hate an evil thought and a lying oath, St. Thomas added: "But these are not effects as subsisting things, to which hatred or love properly belongs." Second, because it seems to be similarly explained by St. Augustine in the passage just quoted, in the words, "All natures and substances . . . You made." God indeed also loves accidents and vital acts, but because He does not love all of them, it is therefore not said indiscriminately and without exception concerning them, "God loves all things that are," or "God is the Author of all existing things," or anything similar. Otherwise, just as it is indiscriminately true that "There is no substance except from God," it would equally be true that "There is no will except from God," or "There is no motion of the will except from God," which Augustine nevertheless expressly denies.

22. What was objected from St. Thomas has little force. The passage from *De potentia* I must be understood either of making simply and in the manner of an Author, in which sense St. Thomas said in I, dist. 47, q. 1, a. 2, "Many things occur which God does not operate," or of willing as prescinding from permissive and approving will. In this latter sense the word "willingly," alleged from St. Augustine, must also be understood, according to the statement of the same Augustine in *Enchiridion*, c. 95: "Nothing therefore occurs unless the Almighty wills it to occur, either by permitting it to occur or by Himself doing it"; and c. 100: "That which occurs even against His will does not occur apart from His will, because it would not occur if He did not permit it; and He certainly does not permit unwillingly, but willingly." But in the other passage of St. Thomas from *Summa Theologiae* I, "operation" is taken for the will to operate "directly and essentially," as distinguished from permission, that is, from the will not to prevent the operation, as St. Thomas himself explains in that a. 12, corpus.

23. To the confirmation I distinguish the major premise: an act of sin is good with a purely transcendental goodness opposed to the good of reason and inseparably infected by evil simply as such, I grant; with another kind of goodness whereby it deserves to be called simply good, I deny the major premise. I then grant the minor premise in the sense in which it is stated by the Fathers, namely as understood of every good which deserves to be called simply good, and I deny the consequence. Thus an act of sin indeed possesses that transcendental goodness which consists in positive entity insofar as it is in some respect appetible. But because this goodness is

opposed to the good of reason, that is, to what is appetible according to right reason, and is therefore inseparably infected by the evil of fault, which is evil simply, either intrinsically and by reason of itself if the act is prohibited because evil, or at least insofar as freely posited under knowledge of the law prohibiting it, such goodness is as it were absorbed by the prevailing evil and does not suffice for the act to be called simply good. Rather it must be called simply evil, not only reduplicatively as possessing malice, but also taken specifically as regards its entity, for even thus it essentially grounds malice and has it inseparably annexed. In this it differs greatly from a sinful man, who, although evil insofar as he sins, is simply good insofar as he is a man.

24. See St. Thomas in II, dist. 40, q. 1, a. 1, throughout, where he proves that good and evil are essential and specific differences of human acts, and explains that he speaks of evil insofar as it signifies the positive entity of the act. "Evil," he says there ad 2, "insofar as it signifies privation alone, cannot be called an essential difference; but it can insofar as it is founded upon some undue end, which end nevertheless is not altogether devoid of goodness. Hence evil in this way is contrary to good and is not a privation." Thus an evil act, even insofar as "it is not altogether devoid of goodness, and as regards the fact that there is something of entity in it and not by reason of the annexed privation," as St. Thomas likewise says there ad 3, is called absolutely evil, contrary to good, and essentially different from good. But who would say that God is the Author of an act of sin in the sense in which such an act is contrary to moral good and essentially opposed to it? Therefore, when it is said that God is the Author of every good, the statement concerns both moral good and physical good which is not of itself contrary to good morals nor essentially opposed to them, for these are the things that can be called simply good. Hence the transcendental goodness of acts of stealing, committing adultery, blaspheming, etc., is not included in that expression. He who loves this is not so much said to will the good as to will evil simply. Thus the Jews who crucified Christ the Lord, "speaking essentially, willed simply an evil estimated as good, insofar as they satisfied their anger or envy," as St. Thomas says in I, dist. 48, q. 1, a. 2, ad 4. There he plainly speaks of evil taken for the transcendental good of an evil work, not for mere privation, which neither is an "estimated good," nor satisfies anger, nor is "essentially" willed, as St. Thomas often teaches elsewhere, e.g. *De malo*, q. 1, a. 3. Likewise acts of this kind must be excepted from St. Augustine's general assertion, "God is the Author of all things that are," etc., as we saw from Augustine himself in n. 20.

25. That every good is lovable or appetible proves only that it can be desired by that to which it is good. But the act of sin is not good for God, but

for the sensual appetite; and this kind of goodness is evil according to reason and therefore is not lovable by God nor prudently by our rational will. "There is a twofold appetite," says St. Thomas, *De potentia*, q. 3, a. 6, ad 5, "namely rational and sensual; and what is good according to one appetite is evil according to the other, as pursuing pleasurable things is good according to the sensitive appetite, which is called sensuality, although it is evil according to the appetite of reason." Yet because this evil is often, with respect to reason, an apparent or estimated good, it can also be desired by our will, but only through an evil act, as St. Thomas often teaches, e.g. II, d. 38, q. 1, a. 5, ad 3. There is indeed found in an act of sin some likeness of the Divine goodness, "for example bodily pleasure, or something of this kind exemplated by the supreme good," as St. Thomas teaches in II, d. 37, q. 1, a. 2, ad 4. Hence such an act is from God as physically exercising influence. Yet it does not follow from this that it is from God as intending or loving it, because that likeness is only a participation of the Divine goodness "according to an obscure resonance," as St. Thomas says there from St. Dionysius, namely because it is deprived of the light of right reason and is contrary to another and better participation toward which God essentially ordains the creature's free choice. Certainly, if God intends and loves such a likeness of His goodness, He wills that it be posited and loved by the creature, since it cannot exist otherwise. But who would say that God wills that the created will, while the prohibition stands, should love the pleasure of adultery, drunkenness, etc., insofar as it is pleasure and insofar as the Divine goodness most obscurely resounds in it?

26. Therefore, when St. Thomas teaches universally that God loves all existing things and wills good to every thing by willing the participation and likeness of His goodness, he speaks with St. Augustine of subsisting things, as we saw in n. 21. And although the same doctrine is by consequence extended to those things which are not so much things or beings as beings of a being, provided that they are not contrary to the good of reason, it is not extended to those which are contrary to such a good, because these rather disagree with the Divine will and are contrary to the order appointed by it for our will. For, as St. Thomas says in I, d. 48, q. 1, a. 2: "The act of the human will is conformed to the Divine will by the fact that it tends toward good, as does the Divine will. And this is conformity according to the efficient cause, because God ordained every will toward good. And God wills us to will this insofar as our will is ordered. But this conformity includes conformity of end," etc. Previously, disp. 46, q. 1, a. 4, in the occurrence of evil, St. Thomas assigns no good that can be willed by God except the antecedent good, namely the condition of a will capable of defecting, and the

consequent good, namely the ordination of evil already committed to punishment. Why does he omit the good of likeness and participation in the Divine goodness which is in the act of sin? Did the Angelic Doctor not see it?

27. It is objected, 2º: God produces the act of sin for Himself as ultimate end, according to Prov. 16: "The Lord has made all things for Himself," and according to St. Thomas in II, d. 38, q. 1, a. 1, where he proves that, just as there is one first principle common to all things, so too there is one ultimate end common to all things. But what God produces for an end He produces from intention and consequently as Author. Therefore, etc. I distinguish the major premise: if the word "for" signifies the end of the decree permitting the production of that act, I grant it, for God permits that act to be produced for the end of His glory. If it signifies the end of the external production itself, I further distinguish: an end to which the production of such an act is intrinsically ordered, I deny; an end to which it is extrinsically ordered, I grant the major premise. I then distinguish the minor premise: what God produces for an end to which the production is intrinsically ordered, I grant; for an end to which the production is not intrinsically ordered, I deny the minor premise, or further distinguish: He produces from an intention of such an effect, or from an intention in some way inclining toward its existence, I deny; from an intention purely permitting such an effect and, on condition that it exists, willing another end, I grant the minor premise and deny the consequence.

28. What everyone says concerning sin taken formally, namely that God permits it for the end or motive of His glory, and that although it is not intrinsically ordered to God Himself, nevertheless, if it is determined by the creature, He wills extrinsically and consequently to order it either to the good of punishment and vindicatory justice, to the good of repentance, or to another good from which God's glory results, so that God is consequently the ultimate end, we say the same concerning sin taken materially, or the production of the evil act as regards its entity. For that an evil act, even insofar as it is an entity or a certain thing, is not of itself ordered to God as ultimate end, St. Thomas expressly teaches in II, d. 37, q. 1, a. 1, ad 5, saying: "It is impossible for there to be any thing entirely destitute of order. Hence even in the very act of sin, insofar as it is a certain thing, there remains some order both to the agent and to some end intended by the agent, which is an estimated good, although it is deprived of order to the due end; and even this disorder God does not leave unordered, but orders through punishment."

29. And in I, d. 47, q. 1, a. 3, ad, St. Thomas says: "An evil act, insofar as it is from the agent, is disordered; but it is ordered by God only through the

punishment that follows or through some good elicited from it." There, a. 4, he teaches that there are some acts which "according to species in the genus of nature" are incapable in every event of laying aside disorder. We quoted the words in the preceding chapter. Hence it is perfectly compatible that God should concur toward an evil act apart from the intention of the act itself, and at the same time with an intention, at least conditional, contained in the permissive decree itself, extrinsically ordering the evil act to a good end. St. Thomas excellently noted this in the cited dist. 47, a. 3, ad 4, saying: "Although evil is apart from God's intention, nevertheless the ordering of evil is intended by God; and the one who works evil, apart from his intention, serves this intention, doing what is apart from God's intention, namely sin." Hence it is also clear in what sense St. Thomas, cited in the objection, said that there is one ultimate end common to all, namely through either intrinsic or extrinsic ordination to it. Hence he teaches there that, according to the proximate ends which the created will intends through its acts, the due relation to the ultimate end may or may not be preserved, and that it is preserved only when the will tends toward the end of charity or beatitude.

30. The passage from Proverbs is to be understood of all those things which God operates not merely permissively, but also properly and essentially, to use the terms of Trent; or rather in such a way that the word "for" denotes the end of the decree applying Omnipotence, both insofar as He loves the good operation and insofar as He permits the evil one and extrinsically orders it to good. One may object: every act intrinsically depends upon God as first principle; therefore it is also intrinsically referred to God as ultimate end, for God is just as essentially the ultimate end as He is the first principle. I answer by denying the consequence. Its proof is met thus: God is just as essentially capable of commanding as He is capable of acting; but He can act every act; therefore He can also command every act. Yet St. Thomas expressly denies this in the cited d. 47, a. 4. Therefore "equally essentially" and "equally universally" are not the same from the terms themselves; and although in the present case they are the same, they are not so in the same way on the side of the effects. For God is the essential ultimate end of all things insofar as all things must be referred to Him by virtue of either intrinsic or extrinsic ordination.

31. It is objected, 3º: God does not conduct Himself in a purely permissive manner toward the act of sin. It is proved, 1º, because pure permission does not entail physical influence. 2º, because God conducts Himself in a purely permissive manner toward malice, or sin as such; but He conducts Himself very differently toward the act of sin as an entity than

toward malice. Therefore. The minor premise is proved: because God can in no way be called the cause of malice as such, nor is it lawful to say that sin is from God; yet among the holy Fathers the act of sin, insofar as it is an act and insofar as it is a being, is said to be from God and to be caused by God. St. Thomas proves this expressly in many places, especially in II, d. 37, q. 2, a. 2; *De malo*, q. 3, a. 2; and *Summa Theologiae* I-II, q. 79, a. 2. In these same places he altogether removes deformity and malice from God's causality. Hence it is inferred that malice, even if it consists in something positive, is in no way physically produced by God.

32. I answer by denying the assumption. To the first proof: pure permission proper to the first Cause with respect to a positive effect necessarily entails the non-withdrawal of physical influence, as we showed in the preceding chapter. To the second: God conducts Himself differently toward the entity of the act than toward its malice if the latter consists in a privation, because He physically produces the entity, but not the malice, since the latter is in itself incapable of being produced. And St. Thomas supposes this position in all the passages alleged against us; hence it is unsurprising that he says that the entity is physically caused by God but not the malice. But if malice is supposed to consist in something positive, God does not conduct Himself differently toward the entity than toward malice taken specifically, because God physically produces the whole work as regards all its positive predicates apart from intention, or purely permissively. Otherwise there would exist in things something positive of which God was not the first principle, and there would be two first principles, one of good reality and another of evil reality, which would savor of Manichaeism. Yet malice cannot on that account be attributed to God, just as, according to us, the entity of the evil act is not attributed to God, because God produces neither as Author, that is, as determining or intending cause. Malice is attributed to the creature for the opposite reason, not only if it consists in something positive, but even if it is a mere privation. For although this privation is apart from the creature's direct intention, and in this sense is said to be accidentally and permissively caused by it, nevertheless, because it results from an act essentially intended by the creature, it falls indirectly under its intention, which suffices for imputation. See the preceding chapter, n. 8.

33. Therefore, if malice consists in a privation, which position the Fathers always or for the most part suppose, God regards, or disregards, both the entity of the act and its malice in the same way as regards intention, since He intends neither; yet He does not furnish physical influence toward both. Hence malice is neither from God through influence nor through

imputation, because it is imputed only to him who determines or intends the act. But if malice consists in something positive, then malice taken specifically, that is, according to the whole of its really produced being, is indeed in some way from God, namely not essentially but accidentally. St. Thomas expressly concedes this in *De potentia*, q. 3, a. 6, ad 13, saying: "Good is not understood to stand against evil as one first principle against another first principle, but as two things proceeding from one first principle, one of which proceeds essentially and the other accidentally." Yet malice taken formally, or reduplicatively as such, is in no way from God. For taken thus it denotes not mere physical influence, but influence as imputable, and regards the determining or intending cause, which is not God but the creature. Conversely, because an evil act under the reduplication "insofar as it is an act" or "insofar as it is a being" does not allude to the determining cause but precisely expresses its need of physical influence, it is rightly said under that reduplication to be from God and to be reduced to God as to a cause.

34. In sum, the expressions, "The act of sin, insofar as it is an act, is not only from the creature but also from God, while insofar as it is deformed," or "evil, it is not from God but from the creature," do not indicate two positive predicates of the work, one of which is produced by God and the other not. They allude only to the mode of acting on the part of the causes simultaneously concurring. The former alludes to the cause physically exercising influence while prescinding from determination and intention; the latter to the determining or intending cause, which is the cause why it is. And because the names "sin," "malice," "deformity," "adultery," "homicide," etc., even when stated simply and without reduplication, according to common usage entail that relation or allusion to the cause why it is, it must therefore always be denied absolutely that "sin," "malice," etc., is from God or is caused by God, even in the real sense. For although God really produces all that which is malice, if malice consists in something positive, nevertheless He is not in the real sense the cause why it is, since in the real sense He neither determines nor intends that work. Hence St. Thomas in II, d. 37, q. 2, a. 2 says: "It cannot be said absolutely that sin is from God, such as homicide or anything of this sort, except with this addition: insofar as it is an act and insofar as it is a being"; that is, insofar as it expresses the need of physical influence and alludes to the cause physically exercising influence, but not under a name alluding to the cause to which it is imputed.

35. St. Thomas should especially be consulted in II, d. 39, q. 1, a. 1, where he derives the entire reason why sin is imputed to the created will from the fact that the act of sin is from the will "both according to the substance of the act and according to the agent's determination toward the act," and that

the will so determines itself that it is not determined by another. Never, so far as I know, is St. Thomas found, when speaking specifically of an act of sin even insofar as it is an act or being, to say that it is determined, intended, loved, or chosen by God, but only that it is caused by Him. Conversely, in order that malice be attributed to the creature, he assigns as the reason that the creature determines the act and essentially intends, wills, and chooses it, as may be seen in the passage just alleged, and there a. 2, corpus; *De malo*, q. 1, a. 3, ad 15; *De malo*, q. 3, a. 2, ad 1; and often elsewhere. Hence one understands why St. Thomas, in II, d. 37, q. 2, a. 2, ad 5, answering the objection that an act of sin cannot be from God while inseparable from deformity unless the deformity too is from God, answers only that God "makes what belongs to the action, and does not make what belongs to the deformity; for even if several things are inseparably joined in one effect, it does not follow that whatever is the cause of it as regards one is its cause as regards the other."

36. Unless this answer is understood according to St. Thomas's mind, it will seem a weak begging of the question, for the very question is how whatever causes an effect does not cause what inseparably results from it, especially since St. Thomas himself, as we saw in the preceding chapter, n. 8, establishes as a general rule which it would be foolish to oppose that one who wills an effect also wills that which is joined to the effect frequently or for the most part. But the answer is excellent according to the mind and principles of St. Thomas. For St. Thomas does not give that general rule concerning one who "causes" in just any manner, but concerning one who "wills" or "essentially intends" the effect. Here, however, he speaks of one who "is a cause," namely one physically exercising influence while prescinding from determination and intention. In this sense he most properly denies that God, by causing the action, causes the inseparable deformity, because, if the latter is a mere privation, it cannot be physically caused; and whatever it consists in, it is not said to be caused except by him from whom the act is caused imputably. But imputability does not follow from the mere office of physically exercising influence unless determination or intention is present. Hence one also understands how apt is the example of limping, which St. Thomas so often uses, and likewise the example of blindness, which he uses in the cited place. For the soul or motive power of itself inclines only toward straight motion and is not determined toward crooked motion except by the curvature of the leg; likewise animal nature of itself roots only visual eyes and does not intend anything positive from which blindness results, but blindness comes from elsewhere contrary to its inclination. Therefore neither the crookedness of the motion is attributed to

the soul nor the blindness of the eyes to nature. Likewise, then, the deformity of an act cannot be attributed to God, because God inclines only toward a good act and does not intend the entity of the act from which deformity results, but such entity is determined by the creature alone against God's will. Hence those examples plainly confirm our position.

37. Hence finally one understands why sin is said to be from the created will and is imputed to it because the will is a deficient cause, or one capable of defecting, and because it is from nothing; and conversely why it is not from God, because God is being from Himself and incapable of defecting. Namely, when the discussion concerns sin, a cause "capable of defecting" is nothing other than a cause "capable of choosing," or "of determining against the law of God." Hence for sin to be from the creature as from a deficient cause signifies that it is from the creature as from a cause choosing or determining that which the Divine law prohibits. Such a cause by that very fact savors of the nothing from which it was made, because the power of determining in this way, although conferred by God, namely with the intention that the creature may possess the glory of not sinning when it is able to sin, belongs only to a finite will made from nothing, and regards an exercise which cannot be carried back to God as Author. For the rest, the power of sinning, or "the condition of a nature capable of defecting, which God established in such a condition," is something "good and willed by God," as St. Thomas teaches in I, d. 46, q. 1, a. 4. Nor is there any doubt that God is the Author of free choice; but "free choice names a power choosing good and evil," as St. Thomas says in II, d. 39, q. 2, a. 2, ad 3.

38. It is objected, 4º: God does not exercise influence upon an act of sin as an accidental cause; therefore He exercises influence as an essential cause. The antecedent is proved: because God never exercises influence except as first principle, or as first and most principal cause, with respect to which every created power is instrumental; and therefore God always exercises greater influence than the secondary cause. But "it is impossible that" something "should be accidental with respect to the first cause and essential with respect to the secondary," as St. Thomas says in *De veritate*, q. 3, a. 2. Otherwise the secondary cause would be prior to the first, because, as St. Thomas says there, "What is essential is prior to what is accidental." Hence it would follow that with respect to some action the creature would be the first principle. St. Thomas also draws this unacceptable consequence in II, d. 37, q. 2, a. 2, saying: "If the human will could produce some action of which God were not the agent, the human will would possess the character of a first principle." If one answers that the human will does not have being from itself but from another, St. Thomas presses the point in reply:

"Although by this answer it would be avoided that it was not first simply, nevertheless it could not be avoided that it was the first agent if its action were not reduced to some prior agent as to a cause."

39. I answer by distinguishing the antecedent. If "accidentally" excludes the essentiality of the cause why it is, that is, the essentiality of determination and intention, I deny it. If it excludes the other essentialities, concerning which in the preceding chapter toward the end, I grant the antecedent, and under the same distinction the consequence. To the proof, I willingly concede that God never exercises influence except as first principle. But the notion of first principle, prescinding from the varying condition of effects, requires only that through unproduced power freely applied by Himself He act under the most general aspect of being, so that His influence is necessary for every effect under the title of being, and consequently under a title which applies equally to every created being, power, and action. God possesses all this with respect to the act of sin although He neither determines nor intends it, and therefore although He is not its essential cause by an essentiality of attribution. Hence this essentiality is not universally convertible with the notion of first principle, but only with the notion of a first principle operating by itself alone and also of one concurring with a secondary cause toward effects not prohibited by God Himself. For it is repugnant that God should determine or intend that very thing which He seriously prohibits. I likewise concede that God always acts as the most principal cause, "principality" signifying the notion of first principle just explained, and that the creature acts only as an instrument of God insofar as it has its power from Him and is incapable of acting without His influence and prior will. Yet it is compatible with this that the created will be a rational, free, elective instrument to which dominion over its own acts belongs by God's condescension and to which consequently an essentiality of attribution belongs, sometimes as the sole cause why the effect is, namely when such essentiality would be unbecoming to God.

40. Finally, I concede that God always exercises more influence than the creature, the word "more" signifying the prerogative of the first principle, but not always signifying a greater intention or determination with respect to such influence. For, "although the first cause exercises the greatest influence upon the effect, nevertheless its influence is determined through the proximate cause," as St. Thomas says, *De potentia*, q. 1, a. 4, ad 3. But when St. Thomas denies that something can be accidental with respect to the first cause and essential with respect to the secondary, he speaks of "accidental" as excluding the essentiality of immediate dependence upon the power, knowledge, and will of the first cause, but not as excluding

determination and intention properly so called. For although he speaks there of intention, he takes the term in a broad sense, insofar as it signifies a will, prescinding from permissive and approving will, concerning the production of the effect in the individual, with perfect knowledge and foresight of it, as will be clear to one who reads attentively. Likewise, "What is essential is prior to what is accidental" if "accidental" excludes the aforesaid essentiality of dependence. It is otherwise if this is compatible with the effect's essentially and immediately depending upon the cause to which it is accidental, and being foreknown and permissively forewilled by that cause before it arises from the essential cause according to essentiality of attribution.

41. Moreover, from this doctrine of ours it is wrongly inferred that the creature is the first principle of some action. For although the creature alone possesses essentiality of attribution with respect to an evil action, it does not thereby acquire the notion of first principle explained in n. 39. A plurality of first principles follows much more plausibly if God in no way exercises influence upon the reality of positive malice or upon the foundation of privation, as we already indicated in n. 32. Nor does St. Thomas infer that absurdity from our position, but from the position which said that the act of sin is "in no way" from God. He rejects that position there "because from it there seems to follow that there are several first principles; for it belongs to the notion of a first principle that it can act without the assistance and influence of a prior agent. Hence, if the human will," etc., as above in n. 38. And he adds that it will at least be "the first agent" if its action is not reduced to some prior cause. Therefore this consequence has nothing to do with us, since we deny that the creature can perform an act of sin without the assistance and influence of a prior agent or without its action being reduced to God, not as Author, but as the first source of all being and the most universal cause without which it cannot occur, who is prior not only in being but also in concurring, as we explained in chapter 2.

42. Accordingly, we concede whatever St. Thomas asserts there, and specifically that God is the "agent" of the action of sin, which word means the same as "acting cause," or at most adds that He is an agent by the office or function of the first cause. In sum, we say with St. Thomas, ibid. ad 2, that "God is the cause of that action in which evil consists, insofar as He communicates to the agent being, power, and action, and whatever perfection is in the agent." All of this is compatible with the absence of essentiality of determination or intention. One may object: at least the creature will be the first essential cause of that action, since it presupposes

no other essential cause. I distinguish: by essentiality of the dependence of the action, I deny; by essentiality of determination or imputation, I further distinguish: insofar as this essentiality signifies a deficient cause, according to what was said in n. 37, I grant; insofar as it signifies anything else, I deny. That the creature is negatively the first cause, that is, the sole cause in the genus of defecting or determining against God's law, is certain and is asserted by the Thomists in the harsher sense, namely that positive malice, or the positive character of its foundation, is in no way from God but from the creature alone.

Certain Other Propositions Are Briefly Explained.

43. One may still object, 1º: God loves His concurrence toward the act of sin. I distinguish: His concurrence in first act, I grant; His concurrence in second act, or external concurrence, I deny. For such external concurrence is evil, not indeed for God or with respect to God, but for the creature and with respect to the creature. It may be pressed: at least with respect to God that external concurrence is good. I distinguish: it is formally good and by reason of itself, I deny; presuppositively, or by reason of the permissive will which it presupposes, I grant, according to the statement of the great Augustine, *Enchiridion*, c. 96: "Nor should it be doubted that God acts well even in permitting whatever things are done badly to be done." Hence it is absolutely true that God concurs well and holily toward the act of sin, because the words "well" and "holily" signify the mode of concurring which pertains to the side of the Divine will. In the same sense the proposition, "It is good for God to concur in second act toward the action of sin," must be conceded, namely insofar as it signifies only the goodness of the mode formally pertaining to the side of the Divine will which concurrence in second act presupposes. But the proposition, "God can holily will what He holily does," must be conceded of permissive willing and denied of approving willing; or it must be distinguished thus: if the holiness of doing consists in His doing by not approving but purely permitting, I deny; if it consists in something else, I grant. It may again be pressed: Omnipotence is no less holy than the Divine will; therefore, if Omnipotence physically reaches the act of sin, the will too will be able to reach it affectively. I concede the whole: for the Divine will too reaches that act by a permissive and aversive affection. But if one speaks of an approving affection, I deny the consequence, because such a reaching would make God the Author of sin, whereas the reaching or physical action of Omnipotence does not. And I press the argument thus: God's knowledge is as holy as His approving will;

but knowledge reaches the malice of sin; therefore so does the will. Or thus: Omnipotence is as holy as the preceptive will; therefore, if Omnipotence physically produces an act of hatred of God, the Divine will will also be able to command it.

44. One may insist otherwise: God loves to exercise influence upon the act of sin while the creature concurs; for in that event God′s influence is so necessary that, if the creature concurred without God′s exercising influence, Omnipotence would fail. I deny the assertion, and I press the appended reason thus: while the creature determines itself against God′s law, the resulting malice is so necessary that, if it did not then result, the power of obliging, and likewise the power of permitting and punishing sins, would fail in God. Therefore God loves malice to result when the creature determines itself. Accordingly, God can antecedently love not to exercise influence upon an act of sin, while simultaneously loving that the creature not concur. But upon the supposition that the creature concurs, which supposition already entails God′s influence, He does not love not to exercise influence, because this would be to love a chimera, namely to will that the influence not exist on the supposition that it exists. Nor for that reason does God love the very exercise of influence on the supposition that He exercises it, although it is metaphysically necessary. For this is a necessity contained in the very possibility of sin, which God does not love although He is connected with it, as we saw in disp. 7, c. 2. Nor can any argument concerning an act of sin be drawn from God′s connection with possibles which would not equally apply concerning malice. Finally one may insist: God loves the fulfillment of the office of first Cause. I distinguish: the fulfillment consisting in the application of Omnipotence to concur, I grant; consisting in external concurrence, I further distinguish: if such fulfillment is determined by the secondary cause against God′s law, I deny; if it is not so determined, I grant.

45. One may object, 2°: God spontaneously offers His concurrence toward an act of sin. I distinguish: He offers it by purely permitting, I grant; He offers it by persuading or inviting, I deny. Yet He offers it "spontaneously," because God most freely wills His own permitting and is compelled by no one. He therefore truly concurs "willingly and because He wills." See above, n. 22. Nevertheless, He simultaneously concurs while seriously "unwilling," not indeed unwilling to permit, in which He differs greatly from a man who through fear or another impulse which he does not dare resist wills to do something reluctantly and unwillingly, but unwilling with respect to the external concurrence, which He simultaneously wills not to prevent. One may object, 3°: our will conquers Omnipotence if, from our determination, God does what He does not will and does not do what He

wills. I press the argument: therefore our will conquers God′s will by committing a sin which God does not will and by not performing a good work which God wills. One will deny the consequence, both because our will does nothing against God′s efficacious will, but only against His inefficacious though serious will, which it certainly resists, as was defined in the Bull *Unigenitus* against proposition 13 of Quesnel; and because this very resistance presupposes God′s most free permissive will, nor can it prevent God from doing with the sinful creature whatever He wills. The same answer must therefore be given to you.

46. One may object, 4º: a subordinate power cannot act precisely because it is not prevented by the subordinating cause. I distinguish: if the subordinate power is not elective, I grant; if it is elective and has dominion over its own act, I further distinguish: precisely because it is not prevented by a positive impediment, I grant; because it is not prevented by the negative impediment of the withdrawal of concurrence, I deny. One may object, 5º: God has the idea of an act of sin, as St. Thomas indicates more than once; but an idea is a form which the work imitates from the intention of the agent, according to St. Thomas, *De veritate*, q. 3, a. 1. Therefore. I distinguish the minor premise: from an intention sufficient that the work not be fortuitous, I grant; from another intention properly so called, I deny, insofar as the concept of an idea is concerned. "Intention" can be taken in a broad sense, as we noted in n. 40, and it is so taken when an idea or exemplar is defined, because taken in this way it suffices that what is made with an idea not be made blindly and fortuitously, which is what St. Thomas intends there. But to exclude fortuitousness there is no need for intention properly taken as an approving and procuring will. But enough of these matters.

CHAPTER V.

Whether There Is a Previous Concurrence of God Physically Predetermining Secondary Causes to Act.

1. Besides God′s simultaneous concurrence, concerning which we have treated thus far, it is asked whether a previous concurrence must be acknowledged, which is asserted and vigorously defended by the Thomists, and of what sort it is. This is called "physical predetermination," and is a certain quality, motion, or impulse proceeding from God alone and physically impressed upon the human will, for example, as more proximate to its action; yet in such a way that it is not an active power and does not pertain to the first act of freedom, or to the free power to act, otherwise it would destroy freedom, but rather presupposes the first act as proximately

and integrally constituted. Consequently it stands in a certain act or sign intermediate between the creature's ability and acting, and is the application of first act to second. This premotion is posited, 1º, as essentially prerequired for every action of a secondary cause, whether free or necessary, so that it would be chimerical for any action whatsoever, natural or supernatural, good or evil, to exist without it. It is posited, 2º, as essentially inseparable from the action which it precedes, so that it would likewise be chimerical for the creature not to act once this premotion is posited. Hence, because it ceases when the creature's action ceases, it is called a transient or flowing motion, or one in the manner of a flow. It is posited, 3º, as depending solely upon God's mere choice, so that the acquisition or prevention of this premotion lies entirely outside the power even of a free creature. With these attributes, which are commonly accepted by the more recent Thomists, physical predetermination is as it were the principal characteristic of the present-day Thomistic School.

2. Nevertheless, it is consistently rejected and vigorously opposed by our entire School, as well as by the Scotist School and by very many other authors of the greatest weight, both before and after the famous controversy concerning the Aids of Divine grace arose between the Dominican Fathers and our Fathers. A list of these authors may be seen in Rev. Fr. Thyrsus, tom. 4, select. disp. 4, from n. 194. Among them are numbered not a few, nor insignificant men, from the illustrious Order of Preachers itself, especially Rev. Fr. Joseph de Vita, who in the distinguished work *De proprio et per se principio etc.*, approved by eminent men of the same Order and published by authority of the Master General in 1665, not incidentally but in an entire treatise fights most vigorously against physical predetermination as foreign to the mind of St. Thomas, opposed to his principles, and hostile to human freedom. Moreover, because the Thomists require this predetermination even for the material element of sin, and because they place in it the efficacy of Divine grace toward salutary acts, this controversy has become a theological matter and is customarily debated at great length by theologians. Now, omitting the theological arguments, which are indeed very strong, from Scripture, Councils, and Fathers, as well as those taken from Divine holiness, or from the fact that physical predetermination would make God the Author of sin, concerning which we have treated sufficiently above in chapter 3, we shall briefly oppose it in free causes on the ground of freedom, insofar as freedom is knowable by philosophers while prescinding from the supernatural order. In necessary causes it is customarily rejected on the ground of superfluity, namely because it is under no title necessary in order

that fire, for example, be determined to act with perfect subordination to the first Cause, as can sufficiently be gathered from what follows.

Physical Predetermination Is Rejected as Contrary to the Creature's Freedom.

3. The attributes of predetermination noted in n. 1 must be kept before one's eyes, namely that it is essentially prerequired for the act and essentially connected with it, and that it depends upon God's choice alone in such a way that its existence or absence is in no way free to the creature. Hence the immense difficulty of reconciling predetermination with freedom is immediately clear. For if that without which the act cannot exist, and once posited the act cannot be omitted, is in no way free to me, how will the existence or omission of the act be free to me? But to make the matter clearer, it is argued thus: a will physically predetermined by God to love, for example, does not exercise love freely; therefore physical predetermination destroys freedom. The antecedent is proved: the will does not act freely, I speak of freedom of indifference, which Faith teaches in addition to freedom from coercion, unless it acts with an unimpeded power not to act, as is certain. But a will physically predetermined to love does not act with an unimpeded power not to act, or to omit the love. Therefore it does not act freely. The minor premise is proved: a will possessing a metaphysical connection with the existence of love which is not free to it but altogether unavoidable and antecedent to every exercise of its freedom is not unimpededly capable of omitting the love, for what could be more impeded? But a will predetermined to love has such a connection, as is clear from the attributes of predetermination. Therefore, etc.

4. The argument is pressed, 1º: a will which neither actually possesses nor has within its power some requisite without which the omission of love is chimerical is not unimpededly capable of omitting love. This seems entirely self-evident, even concerning requisites naturally necessary. Thus one who neither actually possesses nor has within his power wings for flying, light for reading, or the absence of fetters necessary for walking, is not unimpeded for flight, reading, or walking. But the will, at the instant at which it is predetermined to love, neither actually possesses nor has within its power the absence of this predetermination, which absence is so required for the omission of love that it is chimerical for love to be omitted without it. Therefore the will at that instant is not unimpededly capable of omitting love. Likewise, the will at an instant at which it is not predetermined to love will not be freely capable of eliciting love, since it neither actually possesses

nor has within its power the requisite without which the eliciting of love is chimerical. Certainly a free power entails a sufficiency by virtue of which it is imputed to it for praise or blame that it elicits or omits love. But how can such imputation have place if the power lacks an essential requisite for either alternative whose acquisition neither is nor ever was within its power?

5. The argument is pressed, 2º: predetermination to love is an insuperable impediment to the omission of love, since it is altogether repugnant for this omission to be combined with that predetermination. It is likewise an impediment altogether unavoidable and irremovable by created freedom, since it depends upon God's freedom alone. Then thus: a will at an instant in which it lies under an impediment to the omission of love which is not free to it but altogether unavoidable and irremovable is not unimpeded but impeded with respect to the omission of love, as seems clear from the terms and from universal induction. For why otherwise would the humanity of Christ the Lord not be unimpeded for sinning, although subject to the hypostatic union and beatific vision? Or why would one bound in iron chains and detained in prison not be regarded as unimpeded for escape? Or what does it mean for me to be "impeded" except that I necessarily, or apart from all my freedom, suffer an insuperable impediment? Therefore, since the will at the instant in which it is predetermined to love lies under such an impediment, it will not be unimpeded for the omission of love and consequently not free. For the same reason the will will not be unimpeded for loving while it lacks predetermination to love, because it lies under an insuperable impediment not free to it, namely the absence of predetermination.

6. The argument is pressed, 3º: one who without freedom is placed in a state in which it is necessary to act is truly necessitated to act, or acts necessarily and without freedom. What could be clearer? But one who is predetermined to an act is without freedom placed in the state of being "predetermined," for this state is in no way free to him, in which state, or once it is posited, it is necessary to act, since it is impossible not to act. Hence the proposition, "One who is predetermined to an act acts," is of eternal truth and an object of the knowledge of simple intelligence according to the Thomists. Therefore, etc. Otherwise: one who without freedom suffers a metaphysical necessity of acting acts without freedom. What could be more manifest? Or what else is it to be necessitated to act? But one who suffers predetermination without freedom suffers the metaphysical necessity of acting without freedom. Therefore, etc. The minor premise is clear, because the predetermination which a man suffers without freedom is a metaphysical necessity of acting, both because it is a metaphysical

connection with acting and because it is a metaphysical impossibility of not acting, since while it stands it is metaphysically impossible not to act. Certainly freedom of indifference is freedom from necessity, as everyone knows. But how does one possess freedom from necessity who without freedom suffers the necessity of acting, or who possesses no freedom whereby he may avoid the necessity of acting or cast it off from himself?

7. To grasp the force of this argument, it should be known that, as concerns the present matter, there is a twofold necessity. One is called "antecedent," and according to everyone this destroys freedom. The other is called "consequent," and this is compatible with freedom. The distinction between them is taken by theologians from St. Anselm, both *Cur Deus homo* II, c. 18, and *De concordia*, c. or tit. 1. From these passages it is established that antecedent necessity is that which precedes every use of freedom and can in no way be avoided before it exists, such as the necessity that the heavens move or that the Sun rise tomorrow. Consequent necessity is that which in some way descends from a free will, or presupposes its exercise, at least in a conditional state, and therefore can be avoided before it exists, as when it is said, "It is necessary that I speak if I speak," or on the supposition that I speak. These are the characteristics of each necessity, as will be evident to one who reads Anselm. Now compare them with physical predetermination, which is without doubt some necessity of acting, and you will plainly discover that everything belonging to the concept of antecedent necessity belongs to it, while nothing belonging to the concept of consequent necessity does. The same sense is found in St. Thomas's distinction of necessity into "absolute" and "from supposition," or into necessity "of the consequent" and "of the consequence"; the former, not the latter, is opposed to freedom. According to the same norm antecedent power or impotence, and consequent power or impotence, are explained. For one is antecedently capable of something who lacks antecedent necessity toward the opposite; but if he does not lack such necessity, he is said to be antecedently incapable of it. The same is to be understood of consequent power or impotence by reason of consequent necessity. Hence one will infer that one predetermined to act is antecedently incapable of not acting, which impotence according to everyone conflicts with freedom.

8. The argument is pressed, 4º: one who by no kind of free power can prevent an antecedent metaphysically connected with a consequent can by no kind of free power avoid the consequent. This too seems self-evident. Otherwise, once the antecedent was posited, there would still remain some further avoidability and therefore some further contingency or uncertainty of the consequent, contrary to the concept of metaphysical connection and

contrary to the dialectical principle, "Only the true follows from the true." For if the consequent is more contingent than the antecedent, it could happen that, once the antecedent was posited, the consequent would fail, and therefore that the false would follow from the true. But Peter by no kind of free power can avoid the predetermination which is metaphysically connected with love and entails it antecedently, or *a priori*. Therefore he can by no kind of free power avoid the love. Or otherwise: Peter cannot freely prevent this antecedent, "Peter is predetermined to love"; therefore neither can he freely avoid this consequent, "Peter loves," which follows from it by metaphysical connection *a priori*. The consequence is proved: because if he can avoid this consequent, he can bring it about that its opposite is given; but one who can bring it about that the opposite of the consequent is given can bring it about that the opposite of the antecedent is given, which is to prevent the antecedent.

9. Or again otherwise: in the syllogism, "Everyone predetermined to love loves; Peter is predetermined to love; therefore Peter loves," both premises are necessary to Peter by antecedent necessity, or, what is the same, are entirely independent of his freedom. The major premise is so because it is of eternal truth; the minor premise because such is the doctrine of the opponents. Therefore the conclusion, "Peter loves," is equally necessary to Peter. For it is repugnant that a conclusion should not be equally necessary to one for whom the premises from which it evidently follows are necessary. This is clear both in syllogisms constructed in the same form in any other matter, for example: "Every blessed person loves God; Peter is blessed; therefore he loves God"; and from the unshaken dialectical principle, "Only the necessary follows from the necessary"; or, as Aristotle says, *Posteriora analytica* I, t. 17: "When the middle is necessary, the conclusion too is necessary, just as from true premises there is always inferred a true conclusion, and it cannot happen that when the conclusion is not necessary the middle should possess the character of the necessary." Aristotle demonstrates this rule, and St. Thomas with him, there, lect. 13. The same syllogism can be made conditional if in place of the major premise, "Everyone predetermined," etc., this is posited: "If Peter is predetermined to love, he loves." Then likewise from premises necessary to Peter the conclusion legitimately follows according to the rules of the conditional syllogism. The reason is added: whenever love is necessary to me under some condition, if from another source the fulfillment of the condition becomes necessary to me, love becomes absolutely necessary to me. Thus, because it is necessary for me to die if I drink poison, if from another source drinking poison becomes necessary to me, death becomes absolutely

necessary to me and remains in no way free. So too in other cases by universal induction.

10. The argument is pressed, 5º: a free power is "that which, when all things prerequired for acting have been posited, can act and not act," according to the definition approved by all. Therefore, 1º, if predetermination is one of the prerequisites, a free power is not understood until it is posited, and consequently predetermination pertains to first act, or to the power to act. Therefore, 2º, once predetermination to act has been posited, the will can refrain from acting, or, if it cannot, it does not remain free. Consequently, either predetermination is not essentially connected with operation, or it destroys freedom. One may object: once predetermination is posited, the power for omission remains, not for an omission to be combined with predetermination, but for one to be posited in the divided sense. But, besides what will be said below against the first response of the Thomists, I now infer: therefore, once predetermination is posited, there does not remain a power for omission in its composite sense. Therefore it is absolutely false that the will, once predetermination is posited, can omit the act, just as it is absolutely false that a man, once blindness is posited, can see; that the humanity of Christ, once the hypostatic union is posited, can sin; indeed even that, once love is posited, one can fail to love. For the force of that ablative absolute plainly entails the composite sense. The definition of free power will therefore be false or inept. Moreover, the sense of the definition will be that a free power, once a prerequisite for acting has been posited, can fail to act in an event in which it lacks that prerequisite. But this equally belongs to a necessary cause, for example fire, once application is posited. Add that a man truly sins by positing an evil act in the composite sense of predetermination toward it, or by omitting a commanded act in the composite sense of the absence of predetermination toward that act. But in the sense in which he sins he is bound to avoid it; and if he is bound, he can avoid it, since he is not bound to the impossible. Therefore, etc.

11. The argument is pressed, 6º: the will does not act freely unless it determines itself to act. For man "would not possess free choice unless the determination of his own work belonged to him," as St. Thomas says in II, d. 28, q. 1, a. 1, and no one doubts this. But if the human will is predetermined by God, it freely determines itself in no sign: not in a sign prior to predetermination, as is evident; not concomitantly, because then God would not predetermine but co-determine; finally, not in a posterior sign, because after predetermination there no longer remains any indifference of the will or any power not to act which is not presupposed to be so bound and

impeded that it is now impossible not to act and not to follow God's determination. But how will there be room for a free determination of the will in a sign in which it is already impossible not to follow another's determination, which is not free to it? Certainly, freely to determine oneself to act is not merely to effect the act; otherwise the will of a blessed person would freely determine itself to the love of God. It is therefore to effect the act without a previous binding, or with an unimpeded power of omitting, by reason of which it is imputable to the will that it does not omit. But how will it be imputed to the will that it does not omit, for example, an act of theft at the instant in which it is predetermined to it? In what sign will it omit it? In a sign preceding or accompanying predetermination? This is altogether repugnant. In a sign following predetermination? But this sign already presupposes the predetermination, and once that is presupposed not even God can bring it about that the act is omitted.

12. Finally the argument is pressed: physical predetermination presupposes in God a predetermining decree metaphysically connected with a determinate operation, which according to the opponents is incompatible with the indifferent decree discussed above in chapter 3. Therefore the predetermining decree itself, or another decree similarly connected, must be that which applies Omnipotence, which certainly is applied only freely, to concur simultaneously, and consequently must constitute the proximate first act of the created will. But nothing metaphysically connected with a determinate operation constitutes first act without destroying freedom, as the opponents suppose in the present matter. Therefore, etc. The more recent Thomists say that the first act of created freedom is constituted by the created co-principles alone, and not by Omnipotence or the applying decree. But this is exceedingly difficult. For according to everyone the first act of created freedom is a true and unimpeded power of acting and not acting, upon which a precept to act can be imposed and to which it can be imputed as fault that it does not act. But unless God is understood as ready to concur, such a power cannot be understood in a created cause, for the latter is essentially incapable of acting without God's concurrence. And a cause which of itself is incapable of acting without another's assistance is not proximately and unimpededly capable until the other is ready to assist, as is clear from the terms and from the example of a boy who needs the assistance of a strong man to lift a weight.

13. Nor does it matter that a created cause is said to be total in its own order. First, because the reason why one partial cause is not proximately capable without the application of another is its need for that other's cooperation; but every created cause has greater need of God's concurrence

than the intellect has of a species, or the will of a habit elevating it to supernatural action, and so in other cases. Second, because the will too is a total cause in its own order of efficient causality, and nevertheless is not proximately capable of acting until the final cause is applied. Likewise the agent and the patient are total causes in their active and passive orders respectively, yet neither the agent without the preparation of the patient nor the patient without the application of the agent is understood as proximately capable of causing. The same is clear in an instrument, which, although it possesses totality in its order of instrumental cause, nevertheless is not proximately capable of operating until the principal cause wills to use it. But creatures in comparison with God are instrumental causes, as the Thomists insist, especially in the present matter. Indeed, although in these examples physical power can somehow be preserved, the power required for imputability certainly cannot. For who imputes to the will that it does not love an end not yet known, or to fire that it does not immediately burn a diamond, or to a hammer that it does not operate while prescinding from the artisan's will? Add that according to this doctrine the entire first act of human freedom could stand although God efficaciously willed not to concur, since this unwillingness could be given while all the created co-principles stand, and consequently while all the constituents of that first act stand. Therefore man's free power to love, and consequently the precept to love, could stand when God, without any accommodation to the use of human freedom, efficaciously decrees not to concur toward love, which is to decree that love not exist. Then, therefore, the man will be culpable and deserving of punishment for not producing a love which God efficaciously wills not to exist by denying the concurrence which that love essentially needs. Imagine God then reproaching the man and the man excusing himself, and one will see which conducts himself more reasonably.

14. Hence arises a most forceful argument against predetermination. For whenever a man sins by omitting a commanded act, there is a decree of God, altogether unavoidable by the man, denying predetermination toward that act. This in reality is a decree denying simultaneous concurrence toward the same act, since according to the Thomists that concurrence essentially presupposes predetermination. Therefore the man sins by omitting an act toward which God decrees not to concur by a decree unavoidable by the man. God therefore will damn the man because he did not perform a signal chimera, namely to perform an act without God's concurrence, or while God is unwilling to concur. I certainly do not fear damnation for this cause.

15. I omit very many other arguments, all of which may be reduced to these two principles. 1º, "One who without freedom lacks an essential

requisite for an act is not free with respect to that act." 2º, "One who without freedom suffers an essential impediment to the omission of an act is not free with respect to the omission of the act." The first of these is verified in a man who is not predetermined, the second in one predetermined to act. Both are everywhere acknowledged as true and unshaken by everyone except the Predeterminers alone, indeed even by them outside the present question. These things are so clear and so compelling from the terms themselves that, in my judgment, nothing proves the subtle genius of the Dominican Fathers more than the fact that they were nevertheless able to render physical predetermination probable.

The Opposing Answers Are Refuted.

16. The opponents answer, 1º, that a man at the instant in which he is predetermined to love possesses a free power to omit, not indeed to omit in the composite sense of predetermination, but in the divided sense, although the power itself truly exists in the composite sense, that is, simultaneously with predetermination. For, as they say, there is a simultaneity of power for love and omission, although there is not a power of simultaneity whereby love and its omission are posited simultaneously. Thus one who freely loves simultaneously possesses the power for omission or hatred, but not the power for hatred as to be combined simultaneously with love. So too, one who freely sits is simultaneously able to walk, although he is not able to combine walking with sitting. Nor is it an obstacle that, on the supposition of predetermination, a man is incapable of the opposite extreme, because this is consequent impotence, which is well compatible with antecedent power, just as the impotence for hatred upon the supposition of love and the impotence for walking upon the supposition of sitting.

17. But, besides what was said in n. 10, against this, 1º: our arguments do not rest precisely upon the fact that predetermination to love is incompossible with omission or hatred, but also upon the fact that the existence or absence of predetermination is in no way free to the man. Hence it plainly follows that the necessity of loving and the impotence for omitting which it induces are not consequent but antecedent. For what is antecedent necessity, and I ask the same concerning antecedent impotence, except a necessity which someone suffers without freedom, an unavoidable necessity, a necessity which cannot be avoided before it exists, a necessity preceding every use of freedom? Hence the examples used in the answer are turned back upon it. For if love and sitting existed in such a manner that their existence could not be avoided beforehand, they would without doubt

induce antecedent necessity of loving and sitting, and likewise antecedent impotence for not loving and for walking. They induce only consequent necessity precisely because they can be freely avoided by the man before they exist.

18. Against this, 2º: a power to omit in the divided sense of some impediment is not a free power unless one can bring about the divided sense, that is, unless one can divide or remove the impediment from oneself either before it exists or after it exists. This is clear both from the same examples of love and sitting and from a manifest reason. For if the divided sense, or removal of the impediment, can be brought about only by another without any freedom of Peter, Peter's power to omit in the divided sense of the impediment is only a power to omit under a condition whose fulfillment depends solely upon another and in no way upon Peter's freedom. But such a power is not proximate, as freedom requires, but purely remote, such as belongs to a necessary cause, for example to a fire at Salamanca for burning something at Rome on condition that it be transferred there and applied. Otherwise there will be in the humanity of Christ the Lord true freedom to sin in the divided sense of the hypostatic union, in a blessed person freedom to omit the love of God in the divided sense of the beatific vision, and in a chained man freedom to flee in the divided sense of his bonds. But the human will can in no way bring about the divided sense of predetermination, either before it exists or after it exists, since its removal or prevention depends solely upon God's freedom. Therefore, etc. Hence in the composite sense of predetermination there is not in man a simultaneity of proximate power for either alternative, but only proximate power for love and remote and impeded power for omission. Such simultaneity does not suffice for freedom, as countless examples demonstrate.

19. They answer, 2º, that in a man predetermined to love there is a power for hatred in a divided sense, not positive but precisive, that is, a power for hatred according to itself and according to its essential predicates, prescinding from whether or not it is positively divided from the contrary predetermination. In the same way, although my love cannot exist unless it either coexists or does not coexist with your love, nevertheless my power to love prescinds from whether you love or do not love at the same instant. But against this, 1º: therefore there is in man true freedom, and consequently a proximate power to produce hatred, whether predetermination is or is not given, or, what comes to the same as we saw in n. 14, whether God wills or does not will to concur, just as in me there is a power to love whether or not your love is given. Against this, 2º: therefore likewise in the humanity of Christ, in the blessed, and in the chained man, there will be true freedom to

sin, not to love, and to flee, in a precisive divided sense. Against this, 3º: a free power is a power of bringing it about that hatred exists non-chimerically; but hatred, unless it exists positively divided from the contrary predetermination, exists chimerically. Therefore, etc.

20. Against this, 4º: a power for hatred according to its essential predicates is a power for hatred as positively combined with predetermination toward it; therefore it is likewise a power for hatred as positively divided from the contrary predetermination. The consequence is evident. The antecedent is proved: no predicate is more essential to hatred than that it positively depend upon a predetermination coexisting with it, since according to the opponents it cannot otherwise depend upon God as first agent and first free cause. Indeed, this predicate, no less than the character of being, intimately transcends all the other positive predicates of hatred and of every effect, which cannot prescind from it. Therefore to be able to produce hatred according to its essential predicates is the same as to be able to produce hatred as positively dependent upon a predetermination coexisting with it, and consequently as positively combined with predetermination toward it. Finally against the response: there does not suffice for freedom a power which precisely entails that hatred according to itself is possible or not intrinsically repugnant, for such a power is found in the humanity of Christ and in the will of a blessed person. There must therefore be an unimpeded power of bringing it about that hatred according to itself really exists. But our arguments prove that this power is incompatible with predetermination toward love and with the absence of predetermination toward hatred, as will be clear to one who rereads them.

21. They answer, 3º, that the attributes of predetermination do not harm freedom because neither predetermination nor its absence pertains to the first act of the human will, nor is it required for the power to act, but for acting. Against this, 1º: at least the predetermining decree, since it applies Omnipotence to simultaneous concurrence, constitutes first act, from n. 12, and our arguments apply equally to it. Against this, 2º: that without which the free power to act is not understood pertains to first act. But without the existence of an essential prerequisite for acting which is not freely attainable, and without the absence of an essential impediment to omitting which is not freely avoidable, the free power to act is not understood, as the arguments stated above prove. Therefore, if predetermination is given, since it is such a prerequisite and impediment, both it and its absence pertain to first act, which will consequently be chimerical. Against this, 3º: the application of a cause to causing pertains to proximate first act, as is clear in the application of fire, in the intentional application of the end, and in an act

of will applying the intellect to assent to the object of faith or to assent or dissent from a probable object, or even applying an external power, for example to speaking. But predetermination according to the opponents is the application of the will to acting. Therefore, etc. Against this, 4º: predetermination is not understood as posterior by nature to the first act of the human will; therefore it is understood in the sign of first act itself. The antecedent is clear, because nothing is understood as posterior to first act except what proceeds from it and is in some manner caused by it, as is clear from the concept of priority of nature. Finally against the response: whatever may be said about belonging to first act, whoever neither actually possesses nor has within his power an essential requisite for love is not free with respect to love. This is clear in one who neither actually possesses nor has within his power the action productive of love, although action does not belong to the power to act; and likewise in one who neither actually possesses nor has within his power the absence of hatred, although that absence does not belong to the first act of freedom to love.

22. They answer, 4º, that predetermination does not harm freedom because it is not required on the side of the secondary cause but on the side of God. Against this: what does it mean for it to be required only on God's side? Does it mean that predetermination does not constitute the first act of created freedom? But this does not differ from the third response just refuted. Does it mean that it must be produced by God alone? But predetermination posited on the side of first act would also possess this, and nevertheless would destroy freedom. The light of glory too possesses this, and nevertheless leaves no freedom or indifference toward the beatific vision. The hypostatic union likewise possesses this, as would indefectible sanctifying grace, and yet it would destroy the freedom to sin. One may object: predetermination is from God as the first free cause and as the cause eminently containing created freedom and subordinating it to Himself. Against this: therefore neither the beatific vision nor predetermination posited on the side of first act will destroy freedom, provided it is from God as first free cause, etc. One may reply that the condition is repugnant, because God, as the first free cause eminently containing created freedom, does not act through a form which of itself necessitates, but only through a form by which created freedom is fostered. Excellent. Therefore, in order to know whether God acts as first free cause, etc., one must first examine the character of the form through which He acts, namely whether that form of itself necessitates or fosters created freedom. But Thomistic predetermination, considered in itself, is a form not fostering freedom but necessitating it, as has been proved. Therefore it is not a suitable form

through which God acts as first free cause, etc. Consequently neither is it a suitable form through which God subordinates a free cause to Himself as such, because this subordination must entail nothing which of itself conflicts with the concept of true freedom.

23. Hence the Thomists say in vain that God in predetermining efficaciously wills not only the substance of the act but also the mode of freedom, namely that He wills love to occur and to occur freely. But it is certain not only that all things which God wills occur, but that they occur in the manner in which He wills. We readily concede this latter point. But, I ask, can God will love to occur freely by means of the beatific vision, or by predetermination pertaining to first act? You will deny it, I think, because God cannot will contradictories, namely by willing the freedom of love through a necessitating means repugnant to freedom. The same answer must therefore be given concerning predetermination posited in an intermediate sign, since it nevertheless truly is an essential prerequisite for the act and an essential impediment to omission, not free to the creature. All things therefore occur in the manner in which God wills, and the substance and mode of effects must originally be referred to His will, as St. Thomas teaches, *Summa Theologiae* I, q. 19, a. 8. But why? Because, as St. Thomas explains there, the Divine will adapts causes proportioned to the character of the effects, necessary causes for necessary effects, contingent causes for contingent or free effects. Consequently, unless one first proves that physical predetermination is a suitable cause for a free effect, recourse to God's will is vain.

24. Hence another Thomistic evasion is also rejected, namely that predetermination is consequent necessity because it follows the use of created freedom as eminently contained in Divine freedom. It is rejected, I say, 1º, because the same can be said of the beatific vision, of predetermination posited in first act, of indefectible grace, and of the Jansenist victorious delectation. If one says that these forms cannot arise from God as eminently containing created freedom, I refute this as above, n. 22. It is rejected, 2º, because created freedom as eminently contained in Divine freedom is not a creature but God. Therefore a necessity which is consequent only with respect to created freedom as eminently contained in Divine freedom is in reality consequent only with respect to God, not with respect to the creature as existing in itself, and consequently with respect to the creature it is antecedent necessity. But no necessity imaginable in creatures fails to possess this feature. 3º, to that to which freedom of meriting and demeriting belongs, freedom from necessity belongs, as has been defined against Jansenius. But freedom of meriting and demeriting

belongs to the human will, not as eminently contained in God, but as formally existing in itself, as is evident. Therefore freedom from necessity, and consequently absence of a necessity which is not consequent with respect to itself, belongs to that same will thus taken.

25. Some of the opponents answer, 5º, that the human will cannot be necessitated while an indifferent judgment stands. Hence, since predetermination does not remove indifferent judgment, it does not destroy freedom. But this response is commonly abandoned by modern Thomists, and rightly so. 1º, because it greatly derogates from God's dominion, since He will not be able to prevent every free exercise of the created will unless He destroys indifferent judgment. For at least every omission of operation will be free to the man, however much God may will otherwise. 2º, because St. Thomas, *De veritate*, q. 22, a. 8, without recourse to the removal of indifferent judgment, teaches that God can so change the human will as to necessitate it. 3º, because while indifferent judgment stands, God can without doubt will not to concur simultaneously; but then freedom cannot remain in the creature, as we saw above. 4º, because if indifferent judgment preserves freedom intact in every event, freedom will be compatible with predetermination on the side of first act, indeed even with Calvinist or Jansenist grace, which certainly is not posited by its authors so as to exclude indifferent judgment. Freedom to sin could likewise stand with the hypostatic union or with an indefectible habit of charity.

26. Finally, several Thomists, pressed by the weight of the arguments which they see cannot otherwise be answered, respond, 6º, that physical predetermination, at least toward an act of sin, can be prevented by created freedom by virtue of some previous free disposition, whether positive or negative, at least by means of mutual priority, which they explain in sufficiently various and confused ways. The more commonly received explanation seems to be that predetermination precedes the act in the genus of efficient cause, but is preceded by the act in the genus of disposition. Hence, if the human will does not previously dispose itself, it will prevent the predetermination. But, to omit the repugnance of mutual physical priority, sufficiently shown above, disp. 4, c. 2, however mutual priority or the preventability of predetermination is explained, predetermination toward a good act must likewise be posited as preventable by the creature. Otherwise a man predetermined toward a commanded act will suffer an unavoidable impediment to its omission and to an evil act, and without freedom will possess a metaphysical connection with the good act. Consequently he will fulfill the precept neither freely nor meritoriously, as our arguments prove. Each predetermination, both toward the good act and

toward the evil act, must likewise be posited as freely acquirable by the creature. Otherwise a man who is not predetermined will neither actually possess nor have within his power the essential prerequisite for the act, and will suffer an unavoidable impediment to acting, namely the absence of predetermination. Hence the whole difficulty will remain intact and unanswered.

27. But once these things are conceded, the entire structure of physical predetermination collapses and all its foundations disappear, as will be clear to anyone even moderately acquainted with this controversy. For this predetermination will now be useless for making God the first free cause and the first determining cause, for distinguishing one who acts well from one who acts badly, for enabling Him to bend the hearts of men wherever He wills, etc. Middle knowledge will likewise now be undeniable, since no other way remains for God infallibly to foreknow whether the human will will or will not prevent or acquire the predetermination. Hence the entire disagreement between our School and the Thomistic School will consist in this: that our authors posit the entity of efficacious aid as preventable in operating, while the Thomists posit it as preventable in existing, which is more difficult; or again in this, that according to our authors a man's action is immediately free to him, whereas according to the Thomists it is free only mediately, insofar as the existence of the predetermination is free to him. But this certainly is not the point for which so great a struggle was undertaken and is still being waged.

28. Hence one may gather that, as concerns the present matter, the position of Master Manso causes us little difficulty. He maintains a physical predetermination dependent upon a certain previous free negative consent of the creature. This position, formerly asserted by Master Cabrera, is extensively opposed by Fr. Suárez in opusc., *De concursu Dei*, lib. 1, c. 9, n. 6; lib. 3, *De auxiliis*, c. 13; and *De vera intelligentia auxilii efficacis*, throughout c. 18. Nor, whatever Manso may say, can middle knowledge be avoided in that position, as is also acknowledged by the learned Thomists of this Academy of Salamanca, to whom that manner of holding the opinion is deeply displeasing.

CHAPTER VI.

The Contrary Arguments Are Solved, and It Is Proved That St. Thomas Stands with Us.

1. I shall omit the theological objections, just as I omitted the proofs, and shall briefly dispose of the philosophical ones, especially since I have

already sufficiently answered above, ch. 4, the principal objections usually raised against the indifferent decree. Objection 1º: If God does not antecedently act and predetermine our free acts, He will not be the first agent, the first mover, the first free cause, and the first determiner; nor will the created will be a subordinate and instrumental cause with respect to God. I answer by denying the consequence: for, in order that God be the "first agent," it is sufficient that, through uncaused power, He exercise influx under the aspect of being, that is, under an aspect equally comprehending all the being, power, and acting of creatures; for this mode of acting belongs to no second agent. Hence to exercise influx by determining does not belong to the concept of the first agent with regard to all effects, but only with regard to those which God does not will to be free on the creature's part. Nor does it belong to that concept that He exercise influx upon our action prior to us by a priority of really distinct influx, but only by a priority of dignity, independence, and universality. See above, ch. 2, n. 7 sqq. In the same sense God is the "first mover," for moving and acting amount to the same thing.

2. God is also the "first free cause," because He has uncreated liberty, upon which every created liberty depends, and because He exercises His own liberty through His decrees before any created liberty is exercised through its actions. I say before, through His decrees concerning not only created liberty in first act, but also immediately the very actions that are free for us; not, indeed, by efficaciously determining them, at least physically and immediately, or without accommodation to the creature's liberty, but by intending the good action and permitting the evil one. God does this both through the decree conferring helps and through the applicative decree of omnipotence. In this sense also God is the "first determiner," because, in an order prior to every created determination, He freely determines Himself either to permit a depraved action or to bestow a good one. This bestowal consists in God's conferring congruous powers, and simultaneous concurrence as well, with foreknowledge and intention of that action. All these things, however, are preserved even though God does not immediately determine, or predetermine, our actions in the Thomistic sense. Finally, for the created will properly to be a cause subject and subordinate to God, and even instrumental in the broad sense, it is sufficient that it receive from God its being and all its powers of acting, that in acting it be subject to His dominion, and that it be unable to act unless God first wills and simultaneously concurs. On this matter we said more above, ch. 4.

3. It is objected in reply, 1º: Through simultaneous concurrence alone God does not perform our action as an independent cause, because God can no more concur simultaneously without the creature than the creature

without God; therefore, if He does not act by prior concurrence, He does not act independently. I answer: this objection remains solved above, ch. 2, n. 12. Certainly all who oppose Durandus require God's simultaneous concurrence under the title of first cause and supreme dominion; therefore, in simultaneous concurrence itself God preserves and manifests the rights of the first cause and supreme Lord, than whom nothing is more independent. It is objected in reply, 2º: If God does not determine the free action, He concurs with it as determined by the creature; therefore He does not concur freely, but as necessitated by the creature, just as, according to us, if the created will is determined by God, it does not act freely but as necessitated by God. Therefore the creature will take away God's liberty. I answer: it can be denied that God is determined by the creature, as I noted in ch. 4, n. 18. But, granting this manner of speaking, I answer by distinguishing the antecedent: He concurs as determined by the creature, with a determination that on the side of first act presupposes God's free decree, I grant; otherwise, I deny the antecedent and both consequences.

4. We have already seen above, chs. 3 and 4, that the proximate first act of created liberty is constituted through the applicative decree that freely leaves to the created will the determination of the external concurrence of omnipotence. Hence our will, insofar as it is capable of determining God, is constituted through a decree most free on God's part. But if God were related to us in this manner, He certainly would not necessitate us or take away our liberty. See the examples given in the cited ch. 4, n. 9, in which this objection is pressed. Hence God truly concurs freely with an action free for us, which at the same time is God's external concurrence; and this action is immediately free to God, with the immediacy proper to an external action. For an action internal to us is external to God. This immediacy consists in the external action's immediately presupposing a free act of the will, whether commanding or determining, or permitting or leaving, by the withdrawal of which such an action can immediately be prevented.

5. It is objected in reply, 3º: Therefore, at a sign prior to our liberty, God is understood as a free cause. I answer by distinguishing: as a free cause with a liberty to be exercised through our action as though it were internal to God, I deny; with a liberty exercised through His own decree, and to be exercised through our action as external to God and freely left to us, I grant. It is objected in reply, 4º: Determinability implies potentiality and imperfection. I answer by distinguishing: determinability arising from need, or in order to some intrinsic change, I grant; arising from free condescension and in order to an external action that asserts no perfection in God, I deny; and I press the examples in ch. 4, n. 9. It is objected in reply, 5º: To concur by

determining is a more perfect mode of concurring than to follow the determination of another. I press the point: then so too is to concur by necessitating, and by not leaving to another true determination and true dominion over the effect. I likewise press the same examples from ch. 4, n. 9. According to the Thomists, does not God, in withdrawing habitual grace and in aggravating the offense, follow the determination of the sinner? Moreover, in our case that phrase "by following," and so forth, assumes something false if it denotes a real subsequence of God's concurrence to the creature's determination, and it is not to be admitted unless it precisely denotes God's accommodation in first act, according to what was said in ch. 4, n. 14 sqq. In this sense I answer by distinguishing the premise of the reply: it is a more perfect mode of concurring than by following, and so forth, from necessity or need, I grant; from a free condescension by which one accommodates oneself to the requirement of another who cannot otherwise remain free, I deny.

6. Hence it must also be denied that, according to us, a necessary cause is more subordinated to God than a free cause, as they indeed object. For each is subordinated insofar as God wills and insofar as He can will, unless He wills a chimera, such as, in our judgment, would be a cause physically predetermined and yet simultaneously remaining free. Ask the adversaries whether a creature, insofar as it is capable of sinning, is less subject to God than insofar as it is capable of acting well. But if they still wish that greater subordination to follow from our position, distinguish thus: if it follows equally from the fact that a free cause, unlike a necessary cause, retains dominion over its own act, let it pass, or omit it; if it does not follow from this, I deny. Similarly, it must be denied that the created will is absolutely the first determiner, for it essentially presupposes another prior determiner, according to n. 2. But that it is the first, or rather the only, determiner in a qualified respect, that is, with respect to its own free act as immediately determinable, is no more absurd than that formally through its own act it is the first living, the first willing, and the first meriting cause; for God certainly does not receive these denominations from the creature's act. The reason is that in both cases there is an imperfection proper to the creature alone.

7. It is objected in reply, 6º: God would not be the first agent unless He immediately acted all effects; therefore He will not be the first determiner unless He immediately determines all effects. I answer by denying the consequence: because without immediate influx God's most perfect dominion is not preserved, as we saw in ch. 1; but it is preserved without immediate determination, as we showed in ch. 4. And I press the point: God

would not be the first knower unless He knew even the malice of sin; therefore He will not be the first determiner unless He determines the malice, nor the first agent unless He acts the malice insofar as it consists in something positive. It is objected in reply, 7º: If our will did not determine its own act, it would not have dominion over it; therefore neither will God have dominion over that act unless He determines it. I answer by denying the consequence: because if determination is taken away from our will, no title of dominion remains to it; but multiple titles remain to God even when determination is excluded, as we explained in ch. 4.

8. Objection 2º: There is that maxim: "From an indifferent principle insofar as it is indifferent, nothing determinate can arise"; or, as St. Thomas says from the Commentator in 2 *Physica*, lect. 8: "Nothing that is open to either alternative passes into act unless it is determined to one by something." The Holy Doctor gives the reason, namely, that what is open to either alternative is like a being in potency; but nothing is a principle of acting except act, or a being in act. Since, therefore, created liberty in first act is indifferent to either alternative, it cannot pass into a determinate act unless it is first determined by God. This is confirmed from that other maxim: "Everything that is moved is moved by another." Therefore the will cannot be moved to operate unless it is first moved by God. The authority of St. Thomas, who frequently teaches that God moves and applies second causes to operate, supports this. For in 1, p. q. 105, a. 5, expressly explaining the several ways in which God operates in every agent, he says: "The first agent moves the second to act, and in this respect all things act in the power of God Himself." Likewise: "God moves things to operate, as though applying the forms and powers of things to operation, just as a craftsman applies an axe to cutting." And there, ad 3, summarily recounting all the modes, he says: "God not only gives forms to things, but also conserves them in being, applies them to act, and is the end of all actions."

9. The Holy Doctor explains the same thing more fully in q. 3, *De potentia*, a. 7, where he teaches that God is the cause of every action: 1º insofar as He gives the power; 2º insofar as He conserves it; 3º insofar as He applies it, for "God," he says, "is the cause of the action of every natural thing, as moving and applying its power to act." But he further adds a fourth mode, namely, insofar as the second cause acts in the power of God, as an instrument acts in the power of the principal cause. What this fourth mode implies St. Thomas explains there, ad 7, saying: "That which is done by God in a natural thing whereby it actually acts is like an intention alone, having a certain incomplete being, in the manner in which colors are in the air and the power of art is in the craftsman's instrument"; and a little below, that

there is in the natural thing "a force by which it acts toward being as an instrument of the first cause." In these words the Thomists see, most clearly as they think, physical predetermination.

10. I answer to the objection: that maxim, "From an indifferent principle," and so forth, if taken indiscriminately, proves, 1º, that the will must be predetermined by God to malice, or to the formal constituent of sin. It proves, 2º, that no act arises from the will insofar as it is free, since no act arises from it insofar as it is indifferent; for indifference belongs to the concept of liberty just as rationality belongs to the concept of man. Hence, just as that which is not from man insofar as he is rational is not from man insofar as he is man, so too in the present case. It proves, 3º, that in our will, prior to God's predetermination, there is no true ability and true potency for any determinate act, since nothing determinate "can" arise from it. Hence, since predetermination according to the adversaries does not increase ability, there will be no true power of passing into act either before or after it. It proves, 4º, that a will not predetermined to the commanded act cannot be blamed for omitting it; for thus it could answer God: Lord, for such an act I had nothing besides liberty in first act, merely indifferent. How could I violate that maxim: "From an indifferent principle insofar as it is indifferent," and so forth?

11. Therefore this maxim must be explained by everyone with Ferrariensis, in 1 *Summa contra Gentiles*, c. 82, as speaking of passive indifference, or even of active indifference consisting in the defect of some co-principle or prerequisite for acting that cannot be freely acquired. But if it spoke of active, elective, and dominative indifference, which is proper to a free power constituted in proximate first act, the maxim would be false and contrary to the concept of liberty. The same must be thought of the other maxim, "Nothing that is open to either alternative," and so forth. Certainly St. Thomas does not approve it in this latter sense, since he constantly requires for the notion of a free cause that it not be determined to one by another, as will soon appear. This explanation is taken from the reason added by St. Thomas, namely, that a thing indifferent in the former sense is purely in potency, since it contains the act neither formally nor virtually, at least not completely and proximately. But a thing indifferent in the latter sense already contains the act eminently or virtually; hence it is already a being in act, not only insofar as it is an existing thing, which belongs also to a passive potency, but also insofar as it virtually contains that act to which it is indifferent. It is therefore said to be in virtual act and in formal potency, that is, in potency to formal act. You will say: St. Thomas understands that maxim even of the will. I admit it, but not of the will already constituted in

proximate first act; rather, of the will still awaiting the counsel of reason, or knowledge of the end or object toward which it can tend. Hence in q. 3, *De malo*, a. 3, ad 5, when this maxim is objected to him, he answers: "The will, since it is open to either alternative, is determined to one by something, namely, by the counsel of reason; nor need this be through some extrinsic agent." And in q. 1, *De virtutibus*, a. 9: "Because," he says, "the appetitive power is open to either alternative, it does not tend to one except insofar as it is determined to it by reason." What trace is there here of a physical predetermination distinct from every vital act and produced by God alone?

12. Moreover, in 2, d. 25, q. 1, a. 1, he writes thus: "Nothing acts except insofar as it is in act; and hence every agent must be determined to one side. For that which is open to either alternative, being equally disposed, is in some manner in potency with respect to each; and hence, as the Commentator says in 2 *Physica*, nothing follows from that which is open to either alternative unless it is determined." Here is an excellent occasion for establishing Thomistic physical predetermination, if St. Thomas had acknowledged it; and without doubt every modern Thomist will expect it after hearing these words. But alas, St. Thomas has another meaning, for he immediately proceeds to these words: "The determination of an agent to some action must be from some cognition assigning an end to that action." And he adds that this is true in all agents, whether necessary or free, with this difference: in necessary agents the assignment of the end is from the Author of nature; but in free agents it can be from themselves, or at least it is such that "it lies within their power to choose this action or that; whence they are said to have dominion over their act." And he concludes that free choice is not found "in those whose actions are not determined by the agents themselves, but by certain other prior causes."

13. To the confirmation, besides what was said above, disp. 3, c. 5, I answer that the maxim, if it is understood not merely of corporeal causes but generally of all causes, is true, 1º, if "to be moved" is taken as the same as "to be produced," so that the sense is: Whatever is produced is produced by another. It is true, 2º, insofar as it signifies that no cause capable of motion or change is moved without the help of another efficient or co-efficient cause of that same motion. In either sense the maxim is useful for demonstrating the existence of the first cause; but in neither does it prove Thomistic premotion, as anyone can see. You will say: Nothing can move itself unless premoved by another, for otherwise it would simultaneously be mover and moved in the same respect, and therefore simultaneously in act and in potency, simultaneously giving and receiving motion. I answer: Whatever may be true of premotion by another, "it is manifest that the will

is moved by itself," as St. Thomas says, q. 6, *De malo*, a. unic.; and again, 1, 2, q. 9, a. 3, he expressly proves that "the will moves itself." It therefore cannot be denied that the will is truly mover and moved through the same motion. How this is not "in the same respect" St. Thomas explains in the same a. 3, ad 1, saying: "The will does not move and is not moved according to the same respect; hence neither is it in act and in potency according to the same respect. Rather, insofar as it actually wills the end, it reduces itself from potency to act with respect to those things that are for the end, namely, so that it actually wills them." Hence at most it follows that the will must be premoved to the first act of willing the end, namely, happiness in common or confusedly, as I shall soon say. Yet because this volition does not determine the will as regards the exercise of the other acts, according to St. Thomas to be cited below, the will still remains indifferent to either alternative with respect to the others, and therefore in some manner in potency. And since, on the other hand, it is certain that the active and passive potency of the will with respect to its motions are really identified, and that the active potency is "in act" while the passive is "in potency," no one can deny that the will is in some manner "according to the same thing" mover and moved, in act and in potency, giving and receiving motion. Everyone must therefore admit the explanation we gave in disp. 3, c. 5, nn. 1, 2, and 3.

St. Thomas Does Not Favor Physical Predetermination.

14. Whatever is alleged from St. Thomas we freely concede; but at the same time we deny that the "motion and application" asserted by the Holy Doctor is something distinct both from simultaneous concurrence and from the whole first act of the created cause, and, in addition, something depending upon God alone and essentially connected with the creature's action. Until you show these attributes of predetermination in St. Thomas, which you will never do, you appeal in vain to the tribunal of the Holy Doctor. Accordingly, all things act "in the power of God" because they act through a power received from God and conserved by Him, subordinated to God and incapable of acting without God's simultaneous concurrence. This explanation is plainly gathered from St. Thomas, 3 *Summa contra Gentiles*, cc. 66, 67, and 70. Or certainly, if something further is added to second causes so that they may act in the power of God, that something is a new power and pertains to first act; for, as St. Thomas says in that c. 66, n. 4, "The completion of the power of the second agent is from the power of the first agent." Indeed it must be the principal power, because through it the second

cause is rendered capable of producing "being," as the Holy Doctor teaches there. Therefore it cannot be Thomistic predetermination.

15. For the other expressions it must be noted, 1º, that by the name "motion" of the first cause St. Thomas sometimes understands the natural inclination implanted in things by the Author of nature and indistinct from the things themselves. "Natural necessity," he says, 1, p. q. 103, a. 1, ad 3, "inhering in things that are determined to one is a certain impression of God directing them to an end; just as the necessity by which an arrow is driven so as to tend toward a determinate target is an impression of the archer, and not of the arrow. But there is this difference, that what creatures receive from God is their nature." That this impression is called a "motion" is clear from 1, 2, q., a. 2, where he says: "Those things that lack reason tend toward an end through natural inclination, as though moved by another, and not by themselves." By reason of this innate inclination second causes, even rational ones, are said to be "acted upon" by God. Hence St. Thomas, 1, p. q. 60, a. 1, says: "All things that are in the whole world are acted upon by something, except the first agent, which so acts that it is in no way acted upon by another.... And therefore it is not unfitting if an angel is acted upon insofar as a natural inclination has been implanted in him by the Author of his nature." Indeed, by reason of the same inclination rational causes are said to be "determined to one," namely, by a determination of propensity, not of binding or of an unfrustrable connection. Thus St. Thomas, in 2, d. 39, q. 2, a. 2, ad 5, speaking of the innate inclination of the will toward good, says: "The will is in this respect naturally determined to one in its tendency, so that it does not naturally tend toward the other; nevertheless it tends toward that to which it naturally tends, not by necessity but voluntarily; hence it can also fail to choose it."

16. It must be noted, 2º, that when St. Thomas says that second causes are "moved and applied" by God to acting, he also sometimes understands that application which every second cause needs in order to be in proximate first act and capable of acting. In physical causes, for example in fire, this is almost always effected through a local motion of the agent or of the patient; but in rational causes through some intentional motion of cognition or volition. And because motion of this kind is always from God either uniquely or first and principally, God is therefore truly said to move and apply created powers to acting. Thus St. Thomas expressly says in 3 *Summa contra Gentiles*, c. 67, n. 4: "Every application of a power to operation is principally and first from God. For operative powers are applied to their proper operations through some motion either of body or of soul. But the first principle of either motion is God."

17. Hence the Holy Doctor frequently teaches that the will can freely will nothing unless it is first naturally moved by God to the first counsel, or first cognition of the object, and to the first volition of happiness, or of good in common. Thus q. 6, *De malo*, a. unic.; *Quodlibeta* 1, a. 7; 1, 2, q. 9, aa. 4 and 6; and very frequently elsewhere. But hear him in 4, d. 49, q. 1, a. 3, ad 2, quaest.: "The operation of the second cause is always founded upon the operation of the first cause and presupposes it; and therefore every operation of the soul must proceed on the supposition of that which has been implanted in the soul through the impression of the first agent, namely God." And immediately he explains that what the soul presupposes in operating is the first cognition and first volition of good, or of happiness. Hence it is clear that this passage is ineptly alleged against us, since the operation of the first cause that the operation of the second always presupposes is, in a physical cause, the production and conservation of the innate inclination, and in the soul the production of the first cognition and volition.

18. St. Thomas also warns that the counsel of reason, or cognition of the end, does not so determine the will as to leave it no longer indifferent as regards the exercise of the act, and indeed often as regards specification as well. Thus q. 6, *De malo*, a. unic.; 1, 2, q. 10, a. 2; and frequently elsewhere. Hence the "determination" of reason of which St. Thomas speaks in the passages cited above, nn. 11 and 12, signifies only a "propensity" or designation of the object. He likewise warns that not even that first volition of good, or happiness, to which God moves or determines the will, takes away the will's indifference toward particular goods. Thus in 2, d. 39, q. 2, a. 1, and frequently elsewhere, especially 1, 2, q. 9, a. 6, ad 3: "God moves the will of man, as universal mover, toward the universal object of the will, which is good; and without this universal motion man cannot will anything." Note the words "cannot," so that you may see that this motion pertains to ability. "But man through reason determines himself to willing this or that, which is truly good or an apparent good." He immediately adds there: "Nevertheless, God sometimes specially moves some persons to determinately will something that is good, as in those whom He moves through grace." Certainly he is not speaking there of the Thomistic motion that we reject, for this is not given "sometimes and to some," but always to all whenever they act. He is therefore speaking of exciting and attracting grace toward good, determinately indeed, but not determinatively; just as one who asks you for a book moves you toward determinately willing something, but does not determine you.

19. It must be noted, 3º, that simultaneous concurrence also comes under the name of "motion and application" in St. Thomas. Cajetan

expressly teaches this in 1, p. q. 14, a. 13, and q. 19, a. 8. Indeed St. Thomas himself, in the passages objected in nn. 8 and 9, when he carefully enumerates all the modes by which God is the cause of every operation, does not mention simultaneous concurrence under terms other than motion and application. Hence, if he does not include it under these, the absurd consequence follows that he either did not know it or deliberately omitted it as unnecessary. Certainly under the name "motion" every operation of a created cause is broadly comprehended, for "In all created things there is something pertaining to motion, if under motion we also comprehend operation," as St. Thomas says, 1, p. q. 103, a. 1, ad 2, and frequently elsewhere. Hence, since every created cause truly receives its motion from God as first cause simultaneously concurring, it is truly moved by God and acts as moved, or, what comes to the same thing, as aided by the first mover. Appropriately, moreover, the creature's operation, insofar as it is God's action, is actively called "motion," because it implies a relation to the higher cause, which subordinates created causes and subjects them to itself; and it is proper to a mover to subject the mobile thing to itself. It can also be called a "premotion," both if taken radically, or in first act, for the decree applying omnipotence, and if taken in second act, because of those priorities of reason and presupposition discussed in c. 2, n. 7 sqq.

20. The words of St. Thomas, 1, 2, q. 109, a. 1, can be understood of this "premotion" in first act, taken for the applicative decree, which is also called God's action and operation *ad extra*, as we noted in ch. 2, n. 16, and without which complete and proximate ability cannot be preserved in the creature: "However perfect any corporeal or spiritual nature may be posited, it cannot proceed into its act unless it is moved by God." And there, a. 6, ad 2: "Man can do nothing unless he is moved by God"; whence he infers that doing itself "is within man's power insofar as he is moved by God." Note these testimonies well for what we said in the preceding chapter, n. 12 sqq., and n. 21. Hence, when St. Thomas, q. 3, *De potentia*, a. 7, ad 3, says, "In the operation by which God operates by moving nature, nature does not operate," he is plainly speaking of the operation taken for the aforesaid decree. This is so both because he immediately adds, "But nature's own operation is also an operation of the divine power," by which words he acknowledges that God's external operation is indistinct from the creature's action; and especially because there, ad 9, he teaches that just as the operation of nature precedes the operation of art, so the will of God, which is the origin of every natural motion, precedes the operation of nature; hence His operation is required in every operation of nature. You see here evidently what the "premotion and preparation" in which nature does not

operate is, namely, "the will of God, which is the origin of every natural motion." From these principles the passage of St. Thomas in 2, d. 4, q. 1, a. 4, ad 4, when applied to the present matter, can also be explained.

21. For the same reason, simultaneous concurrence verifies that God "applies" second causes to acting: both properly and in first act, insofar as the decree applying omnipotence to concur simultaneously is at the same time the application of the second cause. For whenever subordinate causes lack nothing for proximate ability except the application of the principal cause, that application simultaneously renders the lower cause applied, since it renders it ultimately ready to act even more than, for example, the local application of fire does. It also verifies this less properly and in second act, insofar as "to apply" signifies "to conjoin," in which sense the creature's action itself can be called the application of the power to the effect. And since such an action is truly from God, indeed is God's action, through it God truly applies and conjoins the created power with the effect. This sense of "application," however, is improper, and therefore St. Thomas in the objection cited above said "as though applying."

22. From these preliminary points you will very easily understand, without recourse to physical predetermination, whatever St. Thomas teaches anywhere concerning the motion and application of the second cause by the first. For there is no passage that does not readily refer either to the innate inclination discussed in n. 15, or to the application on the side of first act discussed in n. 16, or to a special motion toward good acts discussed there, or to simultaneous concurrence, whether in first act or in second act, discussed in nn. 19 and 21. The example of a mechanical instrument moved by a craftsman is not introduced by St. Thomas as though it held in every respect. Hence the Holy Doctor, q. 24, *De veritate*, a. 1, ad 5, teaches that the will is not properly an instrument of God like a carpenter's saw, but only in a broad sense, such that "there is in it a principle of its own motion, and it moves itself." The example is therefore introduced to explain the perfect dependence and subordination in acting which every creature has with respect to God, or also the need for prior motion and application which we have explained. And the example can be turned back against the adversaries: for the impulse by which the craftsman moves the saw is without doubt a new power in the saw, standing on the side of first act with respect to its actual motion; therefore the same will have to be said of Thomistic premotion.

23. It remains to explain that fourth mode of operating assigned by St. Thomas in q. 3, *De potentia*, a. 7. But this gives no support to physical predetermination. 1º Because the Holy Doctor expressly distinguishes it

from the mode by which God "moves and applies" the created power to acting, while the Thomists understand their predetermination precisely in this "moving and applying." Therefore, wherever they read such words in St. Thomas, they immediately rejoice as though they had the express support of the Angelic Doctor. 2º Because the Holy Doctor requires that mode, or concurrence, in order to supply the insufficiency of created power, as will be evident to anyone who reads the passage. For he reasons thus: being itself is an effect of God alone according to His proper power; but a second cause cannot attain the effect of the first cause by its proper power; therefore the second cause cannot give being to its effect unless, besides its proper power, it additionally participates in the power of God, as an instrument participates in the power of art. But in this reasoning it is plainly established that the power of the second cause is insufficient and incapable of giving being without that participation in the divine power. That participation therefore undoubtedly pertains to first act, as is also clear in the power of art by which the instrument is rendered proximately capable of operating. But physical predetermination, according to its own authors, neither pertains to first act nor is required because of the insufficiency or impotence of the created will. Therefore, and so forth.

24. The quiddity of that participation, or of that new "force by which the creature acts toward being," is indeed obscure, as is sufficiently clear from the words of St. Thomas in the response ad 7 cited in n. 9; nor does the necessity of asserting it appear sufficiently. Hence Fr. Suárez thinks that St. Thomas tacitly retracted that opinion in the books of the *Summa contra Gentiles* and in the cited passage of 1, p., where, while distinctly treating and enumerating all the modes by which God operates in every agent, he entirely omitted that fourth mode. Yet Fr. Suárez, or any other author of the Society, never said that this participation according to the mind of St. Thomas consists in physical predetermination. Hence Prado labors in vain here, q. 14, § 3, in citing our authors who candidly admit that this passage of St. Thomas is difficult to explain. The Thomists themselves will not deny this if they speak with equal candor. But it is entirely consistent both that this passage does not favor physical predetermination, because of what was just said and because otherwise it would contradict the doctrine very frequently taught elsewhere by St. Thomas, and that at the same time it is not easy to perceive what else it signifies. What prevents me from knowing that a metal presented to me is not iron while at the same time not knowing what other kind of metal it is? Whoever wishes to see a very probable explanation may consult Fr. Ripalda, disp. 104, *De ente supernaturali*, sect. 8, which Prado, loc. cit. § 4, does not sufficiently refute. For us it is now sufficient that this

participation, if it exists, stands on the side of first act, whether free or necessary, since it is a new power, or completion of power, potency, and sufficiency for acting; and consequently that it cannot be physical predetermination.

25. That text of St. Thomas, 1, p. q. 19, a. 3, ad 5, is also commonly objected: "A cause which is of itself contingent must be determined to its effect by something exterior." But it is answered that this is absolutely true in causes that are not free; it is likewise true in free causes, provided the discussion concerns "something exterior" that has the mode of an end or object. Otherwise this proposition contradicts the other one that we quoted from St. Thomas in n. 11. It can also be understood of the remote contingency of the will, which must be determined by God to the first volition of good in common; and thus it is explained by St. Thomas, 1, 2, q. 9, aa. 4 and 6. St. Thomas, 1, p. q. 105, a. 1, ad 3, is also commonly objected, where he says: "The very fact that second causes are determined to determinate effects is from God." But we explained this passage above, ch. 4, n. 15. Finally, it is objected that in St. Thomas it is sometimes, though very rarely, found that God "determines" or even "predetermines" all effects. But nowhere in St. Thomas is it found that God predetermines by impressing upon creatures something prior, connected with the operation, and not pertaining to first act. Therefore, when he uses this word in lect. 3, *In Dionysium de Divinis nominibus*, c. 5, and elsewhere two or three times, he takes "to predetermine" as the same as "to predestine, to predefine, or to dispose by certain and infallible providence," as will be clear to anyone who reads the passages. Our School, through the benefit of middle knowledge, most excellently reconciles liberty with the certainty of divine providence concerning free effects, and predefinition concerning good effects, without a created medium physically connected with them, as is known to theologians.

How God Determines All Effects as Regards Individuation.

26. It must nevertheless be observed here that our authors commonly acknowledge that God, by His choice alone, determines as regards individuation all effects to be produced by a second cause: necessary effects positively, free effects negatively. For since no created power is of itself limited to one individual effect, but contains several specifically similar effects, and does not distinguish among them in the state of possibility, there is nothing by which it can be determined to produce within the same species A rather than B except God. This determination is made through the applicative decree of omnipotence: positively in a necessary cause, for

example in an applied fire, through this or a similar tendency: "I efficaciously will to concur with such a fire toward heat A in such a patient." Once this decree is posited, with Thomistic predetermination excluded, the fire remains positively determined to produce heat A rather than the other heats of the same species. But in a free cause this determination is only negative. Thus, if there is liberty of contrariety, for example toward love and hatred, God through the indifferent decree discussed above, ch. 3, prepares omnipotence only for individual A within the species of love and B within the species of hatred, while He does not offer concurrence toward the other individuals. But if there is liberty of contradiction, for example toward loving and not loving, that indifferent preparation is made only for one designated individual within the species of love, while concurrence toward the others is denied.

27. By virtue of such a decree the human will remains incapable of the other individual acts of hatred or love; and this is to be determined "negatively." Yet for that reason it does not remain determined, but indifferent as to actually positing that act designated by God, since it can freely omit it; and this is not to be determined "positively." It is no different from the case in which, if I have four pens and you take three away, you negatively determine me to writing with the fourth; yet you do not determine me positively, because I am not thereby bound to write with the fourth pen, since I can omit writing altogether. Hence this is not so much your determining me to write with the remaining pen as your determining me not to write with the other pens that you have taken away. You therefore plainly see that a determination of this kind does not prejudice the liberty of loving and not loving, or of hating, since it leaves full indifference to choosing either alternative. You also see that this determination is given even toward an act of sin without that act for this reason being imputed to God. Likewise, in the recent example it will not be imputed to you that I write with the remaining pen if I truly can omit the writing and you neither counsel nor intend it.

The Authority of St. Thomas Against Physical Predetermination.

28. We have already seen that St. Thomas does not support the Predeterminationists. We shall now show, clearly as it seems to us, that he positively opposes them. First, this follows from the four testimonies of the Holy Doctor that we reported above, ch. 3, nn. 26 and 28, which seem most clear against the Predeterminationists, both from the words themselves and from the occasion on which the doctrine so expressly favorable to us is

delivered, as will be apparent to one who reads and develops the context from which they are taken. It follows next from what was said in this chapter from n. 11 onward while explaining the words objected against us. Moreover, in 2, d. 39, q. 1, a. 1, the Angelic Doctor says: "The power of the will itself, insofar as it is in itself, is indifferent to many things; but that it determinately issue into this act or that is not from another determining it, but from the will itself. But in natural things the act proceeds from the agent; nevertheless, the determination to this act is not from the agent, but from him who gave such a nature to the agent." What clearer statement in favor of our position did Fr. Suárez ever make? Here it must be noted that, whereas previously through a printer's error the reading was "is not from another determining," the Paris edition of 1659, corrected by Rev. Fr. John Nicolay, Dominican, substituted "determining," as the context itself and the comparison with a necessary cause immediately following plainly required; nor can the former reading signify anything else without rendering the sense evidently false. But, moreover, St. Thomas closes off every escape there in a. 2, corp., where, explaining what it is "to have dominion over one's own act," he speaks thus: "This" dominion "is in man according to that power which is related to many things and is not determined to any one of them except from itself; and this belongs only to the will." This is our very conclusion in express terms: "The will is not determined to either extreme of liberty except from itself."

29. The same Holy Doctor says, in 2, d. 25, q. 1, a. 2: "In all things that fall under choice, the will remains free, having determination in this alone, that it naturally desires happiness, and not determinately in this or that." Note the words "in this alone." From this St. Thomas frequently elsewhere infers that the will is not free, at least as regards specification, in the appetite for happiness or the ultimate end, because it is determined to it by God. Thus he teaches in 4, d. 49, q. 1, a. 3, quaestiunc. 2. Hence there, ad 1, he states and approves our position generally in these words: "A rational power is related to opposites in those things that are subject to it; and these are those things that are determined through it. But it cannot extend to the opposites of those things that are determined for it by another; and therefore the will cannot extend to the opposite of that which is determined through divine impression." He immediately gives as an example the opposite of the ultimate end. See how a determining divine impression takes away the power for the opposite, which without doubt belongs to the concept of liberty. I do not see how so express a testimony can be evaded unless perhaps by recourse to the composite sense. But that St. Thomas is speaking also in the divided sense is clear from the words that he immediately adds

there: "It can, however, extend to the opposite of those things that it determines for itself, such as those things that are ordered to the ultimate end, whose choice pertains to it." Here he is manifestly speaking in the divided sense, for in the composite sense the will certainly cannot extend to the opposite of what it itself determines.

30. Again, the Angelic Doctor, in order to reconcile our liberty with divine motion, very frequently teaches that "God moves all things according to their mode," or "according to the nature and condition of the things moved." From this principle he infers, *Quodlibeta* 1, a. 7, ad 2, that "God so moves the human mind toward good that it can nevertheless resist this motion." From the same principle he infers, q. 6, *De malo*, a. unic., that God "moves the will according to its condition, not as related to one thing by necessity, but as indeterminately related to many." From the same principle, 1, 2, q. 10, a. 4, he concludes thus: "Since, therefore, the will is an active principle not determined to one, but indifferently related to many, God so moves it that He does not determine it to one by necessity, but its motion remains contingent and not necessary." What could be clearer? Therefore, in whatever the divine motion may consist, whether in some prior vital act, in an applicative decree, in a purely physical flowing quality, or in anything else whatever, the constant doctrine of St. Thomas is that it does not determine the will to one, nor is it an irresistible motion. It certainly would be irresistible if it could not be impeded in existing and could not be frustrated in operating.

31. Perhaps you will say that St. Thomas excludes only a necessitating determination, as is clear from the words "not by necessity." But you will say this in vain. 1º Because the Holy Doctor opposes "indeterminately" to "by necessity"; he therefore holds that necessity is not avoided except through indetermination. 2º Because in those passages St. Thomas intends to explain how divine motion does not impose necessity upon our free acts. Therefore, if he does not hold every unfrustrable determination to be necessitating, but only some such determination, and excludes only this latter, the Holy Doctor's argument will be: God therefore does not impose necessity because He does not determine by necessitating. This is manifestly a begging of the question, which is not to be attributed to so great a Doctor. 3º Because St. Thomas excludes in a free cause a determination similar to the one God gives to natural causes; but the latter is undoubtedly necessitating. Yet Thomistic predetermination differs in itself not at all whether it is in a free cause or a natural one, since in either case it is not a power but an application of power, does not pertain to first act but to a medium, is wholly independent of the creature in being, and is essentially unfrustrable in

operating. No difference can be conceived except perhaps on the side of God's intention; but that intention is of no avail, for otherwise God could intend liberty to remain unharmed through any medium whatever, for example through the beatific vision. Therefore, by the phrase "He does not determine by necessity," St. Thomas excludes every determination essentially connected with one extreme; and he wills God so to move or determine the will, that is, to incline it, that this determination nevertheless is not unfrustrable, but that the will "can resist this motion," indeed in the composite sense, namely in operating, since it cannot resist the existence of the motion; for no other mode of resistance remains.

32. But you will object: St. Thomas, in the cited passage 1, 2, in the response ad 3, says: "If God moves the will toward something, it is impossible to posit that the will is not moved toward it." Therefore God's motion is unfrustrable. I answer, 1º: St. Thomas is speaking here of motion taken for simultaneous concurrence in second act. Once this is posited, it is impossible that the will not be freely moved, since such a motion is identified with the creature's free action itself. Hence St. Thomas immediately adds there: "It is nevertheless not impossible absolutely; whence it does not follow that the will is moved by God by necessity." It is as though he said: it is impossible only on the supposition of the free motion of the will, insofar as "everything that is, on the supposition that it is, must be"; and therefore the will is not moved by necessity.

33. I answer, 2º: The assertion is also true of a really prior motion that is efficacious in first act, that is, one that presupposes a predefining decree regulated through middle knowledge concerning the congruity of the motion. For, once that efficacious will of God, or predefining decree, is posited, it is impossible that the created will should not be moved through its own free motion; not, indeed, "absolutely," but by supposition, or by consequent impossibility. For with regard to the creature's free motions the efficacious will of God, which in 1, d. 47, q. unic., a. 1, is called by St. Thomas the "consequent will," whence the Holy Doctor says there, "Whatever God wills by consequent will is entirely accomplished," is posterior by a posteriority of accommodation to the use of created liberty, which it presupposes as foreseen in a conditioned state. Therefore "the consequent will receives the condition of the creature," as St. Thomas says in 1, d. 46, q. 1, a. 4, ad 3, while at the same time teaching that God does not will by consequent will that "evils not be done," and therefore that goods be done, "except with regard to those whom He knows not to will to do evils." In these words middle knowledge is most openly taught.

34. Therefore this predefining will, on the supposition that it exists, cannot be "impeded," that is, cannot fail to be fulfilled, as St. Thomas says in the cited d. 47. But because that supposition is objectively capable of being impeded by the creature by reason of the knowledge which it presupposes, it does not render the omission of the act impossible "absolutely," nor does it cause the "will to be moved by necessity." In the same sense St. Thomas must be understood when elsewhere he teaches that God moves the will "efficaciously, infallibly," or "immutably," and indeed "because of the efficacy of the moving power, which cannot fail," as the Holy Doctor says, q. 6, *De malo*, a. unic., ad 3. For from the efficacy of the divine power it follows that God can never lack infinitely many means that He foresees will be congruous and conjoined with the operation if they are given, although of themselves and intrinsically they are not unfrustrable; and consequently He can never lack infinitely many means by which God immutably, that is, certainly and infallibly, moves the created will and bends it wherever He wills.

35. Finally, to omit many other passages of St. Thomas which our theologians weigh with great force, the Angelic Doctor, q. 2, *De veritate*, a. 12, distinguishes the necessary from the contingent, or free, in this: "The necessary cannot be prevented from being, before it occurs, because its causes are immutably ordered to its production." And in 1 *Peri hermeneias*, lect. 14, he says thus: "If an active potency is so determined to one that it cannot be impeded, it follows that it reduces the passive potency to act in the same manner by necessity." Since, therefore, the potency of the will, at the instant in which it is physically predetermined to love, is immutably ordered to the production of love and is so determined to one that it cannot be impeded, since it cannot impede the predetermination either in its existence or in its operation, it follows that it receives love not freely but "by necessity," or that love is not free but necessary for it. St. Thomas himself, in the same q. 2, *De veritate*, a. 12, ad 7, establishes and proves that from a necessary antecedent a necessary consequent follows, because if a contingent consequent followed, the opposite of the consequent could stand together with the antecedent. "Hence," he adds, "this must occur in every conditional, if it is true, whether the antecedent is an effect, or a proximate cause, or a remote cause." Thus you may plainly see that St. Thomas holds as unshaken, even in the matter of liberty of which the Holy Doctor is there speaking, those principles by which we attacked predetermination in the preceding chapter, nn. 8 and 9. Let the impartial reader now compare the testimonies reported with those that are objected against us, and candidly pronounce which side the Angelic Doctor favors.

TREATISE III.
ON THE REMAINING SIX BOOKS OF THE PHYSICS.

Throughout the remaining six books of the *Physica*, Aristotle treats of motion, action, passion, place, time, the infinite, the continuous, and also the first Mover. We have said many things concerning these matters above; others we shall give in the third part of this work; others we omit because they seem less proper to the speculative philosophy which we are now delivering, and which principally regards Scholastic Theology. Nevertheless, we shall now comprise in four disputations certain points fitting the present undertaking.

DISPUTATION I.
ON MOTION, ACTION, AND PASSION.

CHAPTER I.
On Motion.

Motion is defined by Aristotle, lib. 3, t. 6: "The act of a being in potency insofar as it is in potency." It is called an "act," that is, an actualization, or the exercise of a potency, in the sense in which the exercise of any potency, whether active or passive, is called its "second act." Hence motion is not an absolute form but a modal one, and is taken as a way or tendency toward a term, or as the acquisition of some form. By the name "being in potency" is principally signified the patient, or a being in passive potency, which is called

the "thing moved" and the "mobile." For although every motion also implies the exercise of an active potency, which is called the "moving" potency, the "mover," or the "motive" potency, because there is nothing moved without a mover nor anything acted upon without an agent, and therefore motion includes action and passion, and for this reason is again defined by Aristotle in the same lib. 3, t. 23 as "the act of that which can act and be acted upon insofar as it is such," nevertheless the name "motion" principally denotes passion, or implies an order to passive potency. Hence it is also defined by Aristotle in the cited book, t. 16, as "the act of the mobile insofar as it is mobile." Therefore "to be moved" is taken as the same as "to be acted upon." What TO "insofar as it is in potency" signifies depends upon the various senses of motion.

2. For, 1º, motion is taken in the broadest sense for any operation whatever. In this sense motion will be the act of a being "insofar as it is in potency," that is, insofar as such a being passes from passive potency into act, whether the passive potency is physical, such as a subject already produced has for receiving a form, or logical, such as a possible thing has for actually existing. For this logical potency, since it is passive producibility, or capacity for receiving being, can also be called passive potency. In this broadest and highly improper sense even creative action is comprehended under the name of "motion." It is taken, 2º, more properly for any eduction whatever, whether instantaneous or successive, spiritual or corporeal, whether it presupposes a subject temporally preceding or not. In this sense TO "insofar as it is in potency" means the same as: insofar as the subject is first reduced into act from physical passive potency presupposed at a prior sign. According to this sense, and a fortiori according to the following ones, it is commonly and truly said that creation is not motion.

3. It is taken, 3º, much more properly for the eduction alone, of whatever kind, that presupposes a subject deprived of the form; for such a subject is what is properly said to be "in potency." Hence in this sense motion will be the act of a being "insofar as it is in potency," that is, insofar as it passes from privation to form. In this sense must be understood Aristotle's statement, lib. 5, t. 9: "Every motion is a certain change." Hence "motion" and "change" are commonly taken for the same thing, as are also "mobile" and "changeable." Nevertheless, not every change is motion, as is clear in a purely privative or negative change, for example when the air ceases to be luminous, and also in formal change, concerning which see tr. 1, disp. 1, c. 8. Therefore only a causal or way-like change, which causes a subject to be disposed differently now than it was before, is convertible with motion.

4. Still more strictly, motion is taken, 4º, for the successive eduction alone of a corporeal form, whose parts are posited in a continuous temporal succession, as when heat in the hand is continuously intensified by nearby fire, or when someone is moved from place to place. Thus the explanation of the definition will be: an imperfect act so actualizing the mobile that it leaves it in potency to be actualized more and more through a continuous increase of the same act. For it belongs to the nature of successive motion that, so long as it exists, it is partly acquired while something of it remains to be acquired without interruption; and therefore motion is said to cease when the term is reached or when the succession is interrupted. Finally, most strictly, it is taken, 5º, for the successive eduction alone of a corporeal form having a contrary which is continuously expelled. Thus the explanation of the definition will be the same as in the fourth sense, with only this added, that the mobile is "in potency" to acquire a new form and to lose the contrary one. This variety of senses must be kept before one's eyes in order to understand the various expressions of Aristotle and the other ancients, who do not always take motion in the same manner.

5. Of these senses the fourth and fifth are more directly intended by the Philosopher and are more frequent in him. Nevertheless, the second and third are more usual today in the Schools, where the name "motion" is extended to every eduction, even supernatural and spiritual, especially to acts of understanding and willing, which the Philosopher approves in 3 *De anima*, t. 28. Hence motion is commonly divided into instantaneous and successive. Instantaneous motion is that which exists wholly in the first instant of time, as generation, or the eduction of a substantial form, sudden illumination, and the production of an intellection. Successive motion is that which requires a span of time, such as we described in the fourth sense. Each has terms "from which" and "to which." The term "from which" is that from which the subject recedes by virtue of the motion; that toward which it approaches, or which it acquires through motion, is the term "to which." Hence in instantaneous motion the term "to which" is the form newly produced, or the composite resulting from it; the term "from which," according to the third sense, is the privation of that same form, or also another positive form expelled by the new one, if the motion is transformative. But if the motion does not presuppose a subject deprived of the form, according to the second sense, as in the intellection elicited by an angel in the first instant of his existence, it does not then properly have a term "from which"; nevertheless, the pure preceding negation of the form can improperly be so called.

6. In successive motion the term "from which" is that form, privation, or remission which is left behind at the inception of the motion, as the location which a body leaves when it begins to be moved locally, or the remission of heat or intensity of cold which the hand leaves when it begins to become hotter. The term "to which," however, is that form, or part of a form, in which the motion stops and the succession ends, as the final location in which the body stops, or the final degree of heat at which the intensification stops. Understand this when successive motion is taken after the manner of one continuous whole. For if its individual parts are considered, to each part there corresponds its own part of the form as an intrinsic term "to which," and the final part is only an extrinsic term with respect to the preceding parts of the motion.

7. If you ask whether successive motion differs essentially from instantaneous motion, I answer, 1º: It certainly differs if taken reduplicatively insofar as it actually has succession, as is evident. I answer, 2º: It also differs if successive motion in aptitude is compared with motion that is essentially instantaneous. For there is a motion essentially requiring that it be whole in an instant, namely the production of an indivisible form which cannot be intensified; and there is likewise a motion essentially apt to occur successively, such as the intensification of heat. I answer, 3º: There is a motion of itself incapable of occurring except successively, namely local motion, and perhaps there is no other example; this is called successive of itself and differs essentially from instantaneous motion. I answer, 4º: There is an actually successive motion which of itself can occur in an instant, and therefore is instantaneous in aptitude and does not of itself differ essentially from every instantaneous motion; for example, the intensification of light that occurs in this space from a lamp gradually approaching. For the whole would occur in an instant if the lamp suddenly appeared here. Hence this motion is called accidentally successive. The intensification of a quality having a contrary, for example heat, is judged to be of the same kind. Although it occurs successively because of the resistance of cold that must gradually be overcome, of itself it could occur instantaneously if the subject were present entirely devoid of cold. Nevertheless, in qualities of this kind the succession is not called "accidental," because according to the order of nature the contrary quality must always, or almost always, be overcome.

8. By reason of the term "to which," motion is divided by the Philosopher into three general members. The first is the motion of "increase," by which quantity is acquired; the second, the motion of "alteration," by which quality is acquired; the third, the motion of "locomotion," by which place is acquired, and which is called "local motion."

The motion of "generation," by which substance is acquired, is commonly added, especially if it is not first "generation" but additional generation or "nutrition," which commonly occurs successively. But the Philosopher excludes generation from the notion of motion in lib. 5, cc. 1 and 2, where he teaches that motion of itself is given only toward three Categories, namely Quantity, Quality, and Where. How this is to be understood is explained by the Conimbricenses there, q. 1, a. 3. The substance of the explanation is that Aristotle there speaks of motion taken most strictly, as in the fifth sense given above, namely insofar as motion presupposes the whole substantial composite as subject and takes place between contrary positive terms. He calls those terms contrary between which there is some latitude to be traversed successively: either a gradual one, as between hot and cold; an extensive one, as between a small and a large quantity; or a spatial one, as between distant places. See the Conimbricenses, q. cit. But if motion is taken as above in the second and third senses, it has as many genera and species by reason of its term "to which" as there are educible forms.

9. From what motion is specified will be evident from what is to be said in the following chapter concerning the specificative principle of action and passion, from which motion is commonly and rightly supposed not to be distinct in reality, whatever some may say. For no function is attributed to motion that is not performed by action or passion, or by both; nor is there any definition of motion that does not belong to both or to one of them, as is clear in the three Aristotelian definitions reported in n. 1. You will say: Motion belongs to no Category, but is placed by Aristotle among the postpredicaments, while action and passion each claim a Category of their own. I answer: A threefold respect is considered in motion: 1º to the active cause, and under this respect it is called "action"; 2º to the mobile, or subject, and thus it is called "passion"; 3º to the term, and under this respect it is called the "way," or the "becoming" of the term. Therefore, insofar as it is taken under the third respect, it does not belong to a special Category, but is reduced to the Category of its term. This matter contains much that is conventional; and for it a distinction of reason, or one according to the mode of signifying, is sufficient.

10. Concerning the distinction of motion from the term, the mover, and the mobile, the same judgment must be made as concerning the distinction of action. Concerning the contrariety of motions, it need only be observed here that motions are called contrary by reason of the terms toward which they tend, insofar as the terms themselves are incompossible with respect to the same mobile, for example the motion of the same body upward and downward, or the intensifications of cold and heat. Finally, it must be noted

that "rest" is opposed to motion. Rest is sometimes taken merely negatively, and thus it is the mere absence of the action that motion implies, as when the air is not illuminated or sight ceases from seeing. Sometimes it is taken positively, and thus it is the conservation of a term acquired through motion without further progress. Hence in instantaneous motion it can happen that rest differs from motion only according to a negative connotation, insofar as "motion" connotes a privation of the form in the immediately preceding instant, while "rest," or conservation, connotes the preexistence of the form. In locomotion rest differs from motion as regards the negation of further progress and as regards the number of parts preceding in the motion. In other successive motions that are apt to be simultaneous, rest can imply or retain whatever positive reality was in the motion, for example when hot water gradually restores itself to its connatural coldness and rests in it; and then rest will differ from motion only as regards the simultaneity of the parts and the negation of further progress.

CHAPTER II.
On Action and Passion.

1. Action, or production in common, is the proper causality of the efficient cause, and is defined as "the exercise whereby an active power as such causes an effect"; or, in other terms, "the ultimate formal determination of an active power to cause an effect, and of the effect itself to arise from such a power." It is divided into creation and eduction. The former is "the production of an entity from nothing"; the latter, "the production of an entity from a presupposed subject." We explained the distinction between them in tr. 1, disp. 4, c. 4. What remains to be said concerning creation we shall indicate in the following chapter. To eduction, which alone pertains to motion, there corresponds passion, which is also called sustentation and reception and is the proper causality of an extrinsic material cause. It can be defined as "the exercise whereby a sustentative potency as such causes a form"; or, in other terms, "the ultimate formal determination of a passive potency to cause a form, and of the form itself to depend upon such a potency as upon a presupposed subject." What it is to cause after the manner of a passive, sustentative potency, of a presupposed subject, and of an extrinsic material cause, by which expressions the same thing is signified, was explained both in tr. 1, disp. 4, c. 4, and in tr. 2, disp. 2, c. 2. There also, c. 5, n. 22, may be seen the division of action into immanent and transient.

2. That action is modally distinct from the active power is clear from what was said in tr. 2, disp. 2, c. 5, n. 24. The same reason proves that passion is similarly distinct from passive potency, namely, the reason of non-mutual separability. For although the passion of a form in matter A is essentially incapable of existing without such matter, the matter itself can nevertheless exist without such a passion. Likewise the same reason proves the distinction of action and passion from the form, or produced term, unless perhaps some term is proved on other grounds essentially to require dependence upon such and only such an individual active and passive cause, as many think of a vital act. The question nevertheless arises whether action and passion are really distinct from each other. I say "really," that is, modally, or as two modes distinct on the side of the thing; for no one here is thinking of an absolute real distinction. This question, like the related question whether action is received in the patient or in the agent, is disputed at length among the Thomists. Both must be briefly decided by us.

Action and Passion Are Not Really Distinct from Each Other, but Only by Reason.

3. Thus our authors commonly hold with the Eximious Doctor, disp. 49, *Disputationes metaphysicae*, sect. 1. This is also the common opinion of the Thomists whom Prado reports and follows, with Froylan and Aguilera subscribing. The contrary opinion is held by some of our authors, several other Thomists, and commonly by the Scotists. But our position is proved, 1º, from the authority of Aristotle, who expressly teaches and defends it, 3 *Physica*, c. 3; and St. Thomas does the same more fully and explicitly there, lect. 5, and in 11 *Metaphysica*, lect. 9. It is proved, 2º, because eduction, or educive action, concerning which alone we are speaking here, for creation is not passion and does not imply it, essentially depends of itself upon a presupposed subject and renders its term dependent upon that subject and affixed to it as sustaining it. But these are the functions of passion, as everyone admits. Therefore, and so forth. The major is clear from the concept of eduction which we gave in tr. 1, disp. 4, c. 4. It is also clear from that definition accepted by all: "The production of a thing from a presupposed subject." From this it follows, 1º, that eduction essentially includes a respect not only to the agent but also to the presupposed subject from which; and this respect is the characteristic of passion. It follows, 2º, that eduction renders the term produced not merely in any manner whatever, but dependently upon the presupposed subject, or, what is the same, dependently upon passive potency. Therefore, once eduction is

posited, with every other mode prescinded from, the form is understood actually to depend upon passive potency; and this dependence according to all is formally passion.

4. From these things you will gather that action under the name "eduction" is distinguished from passion only according to implicit and explicit, for passion pertains to the definition of eduction. Nevertheless, "action" and "passion" under these names are distinguished by a greater distinction of reason, because under the former there is conceived only the respect to the active cause, and under the latter the respect to the passive cause; and one respect seems capable of being prescinded from the other, although each is also formally a respect to the term. Hence, as we said concerning motion, c. 1, n. 9, there is in action taken really a threefold transcendental respect, which may be called "from," "in," and "toward." For action regards the agent as that from which it is, the patient as that in which or from which it is, and the term as that toward which it is. The first two respects are distinguished from each other by reason, but neither can be perfectly prescinded from the third. The third itself, however, is subdivided by reason into two: one is toward the term as produced, and is called the becoming of the term, and differs from action as such only according to explicit conception; the other is toward the term as received or sustained, and is formally included in passion as such.

5. Finally, their real indistinction is proved because modes are not to be multiplied without necessity; but there is no necessity in the present case. Therefore, and so forth. The minor is proved, 1º, because once eduction is posited there remains no indifference that must be determined through a new mode, since it is repugnant that the form be educed without depending upon the passive cause. There is likewise no separability of eduction from passion, or conversely. 2º Because it frequently happens that causality really the same implies a respect to two very diverse causes: the causality of a final and of an efficient cause can be the same; the same external causality can belong to God and to a creature; and the same causality can belong to a principal and an instrumental cause, for example to the intellect and the species. Why, therefore, should the same not happen in the present case? 3º From the solution of the arguments for the contrary opinion. 4º Especially against the Scotists, who place action and passion in distinct relations that result after the term has been produced, one in the agent and the other in the patient. For, first, we sufficiently rejected in Logic relations of this kind really distinct from the foundation of relating. Next, since those relations presuppose the term already produced and actually dependent upon the active and passive causes, they arrive too late to be properly called "action

and passion." For under these terms we understand the exercises of each cause, and it is in no other sense that we dispute; but those exercises certainly do not presuppose the term already produced.

Educive Action Is Not Received in the Agent, but in the Patient.

6. This assertion is a corollary of the preceding one, and is therefore defended by the same authors, indeed even by some who hold the contrary opinion on the preceding question. It concerns transient action; for there is no doubt that immanent action is received in the agent, since the agent is indistinct from the patient, although even this action does not formally *inesse* in the agent insofar as it is agent, but insofar as it is patient. It is therefore easily proved: Passion according to all is received not in the agent but in the patient; but action is really indistinct from passion, as we have shown; therefore, and so forth. And this is the express position of the Philosopher and St. Thomas in the passages cited in n. 3, where they also defend it against objections. St. Thomas may also be seen in 3 *De anima*, lect. 2, litt. g, on the Philosopher's text 139, which is equally express in our favor; likewise in several other passages cited by Ferrariensis in c. 1, lib. 2, *Summa contra Gentiles*, and by Prado, lib. 3 *Physica*, q. 4, § 2.

7. Hence, when the Angelic Doctor in other passages cited by the College of St. Thomas at Alcalá seems contrary to this assertion and the preceding one, as when he says that action is in the agent as an accident in a subject, likewise that it is a certain perfection of the agent and produces some change in it; and when in 2, d. 40, q. 1, a. 4, ad 1, he speaks thus: "Since action is in the agent and passion in the patient, the accident which is action and the accident which is passion cannot be numerically the same, since one accident cannot be in two subjects"; these testimonies, I say, must be understood partly of immanent action, which is an intrinsic perfection and change of the created agent, and partly of transient action taken concretely, or in denominating, namely insofar as it gives the denomination "agent." For in this sense it is a logical accident diverse from passion and *inesse* only in the agent, or inheres in it by logical inherence, that is, in predication.

Contrary Arguments.

8. Against both assertions it is objected, 1º: Action and passion pertain to diverse Categories and constitute two genera of being; therefore they imply two complete essences that must be really distinct. Objection 2º: Two formal effects equally primary and primarily diverse, such as "to act" and "to

be acted upon," or the denominations "agent" and "patient," cannot arise from the same form, because a formal effect is not distinguished from the form, or at least its diversity arises from diversity of form. Objection 3º: Action as action is an accident, since it pertains to the Category of Accident; therefore it inheres in some subject. But action as action does not inhere in the patient; therefore it inheres in the agent. The minor is proved both because inhering in the patient is proper to passion as such and insofar as formally distinct from action, and because if action as action *inesse* in the patient, it would give the patient the denomination "agent." Objection 4º: A created agent is perfected and changed by acting, for it belongs to God alone not to be changed in acting; therefore it receives its own action in itself. Moreover, action is a mode of the agent, arises from what is intrinsic to the agent, and reduces its intrinsic potency of acting to act; but an intrinsic potentiality cannot be reduced to act except through an intrinsic actuality. Moreover, no created potency is so purely active that it is not also passive; otherwise it would be pure act, like God's omnipotence.

9. I answer to 1º: In order that action and passion pertain to diverse Categories, a distinction of reason founded upon a respect to diverse denominable subjects is sufficient, by virtue of which they provide diverse and disparate denominations as regards the subject, so that neither implies the other in the same subject. We are speaking of transient action, which alone the adversaries judge to belong to the Category of Action. Therefore action and passion in the concrete, that is, "to act" and "to be acted upon," in which sense Aristotle takes them when dividing the Categories, imply diverse genera of predicates, because acting and being acted upon, or being patient and agent, are not said of the same subject. Hence action and passion imply two complete essences, not physically but logically, or in the order of predication. St. Thomas solves this argument in the same way, both more fully in 3 *Physica*, lect. 5, and more briefly in 11 *Metaphysica*, lect. 9, where he says thus: "If action and passion are the same according to substance, it seems that they are not diverse Categories. But it must be known that the Categories are diversified according to diverse modes of predicating. Hence the same thing, insofar as it is predicated diversely of diverse things, pertains to diverse Categories." And a little later: "Motion, insofar as it is predicated of the subject in which it is, constitutes the Category of Passion; but insofar as it is predicated of that from which it is, it constitutes the Category of Action."

10. To 2º: Although that doctrine is true in a form wholly absolute, such as heat or whiteness, it is otherwise in a modal form, which can equally primarily regard diverse denominable subjects and therefore provide two

equally primary formal effects, one intrinsic and the other extrinsic, which are diverse logically as regards the form and physically as regards the subjects; for the subject also is included in the formal effect. Thus the same action denominates the cause "producing" and the term "produced"; and the same volition denominates the potency "willing" and the object "willed." If you say that the denomination "produced" or "willed" is not primary because it follows and as it were results from the denomination "producing" or "willing," I shall say the same of the denomination "patient," which likewise as it were results from the denomination "agent." For I did not call them disparate except as regards the subject. Otherwise, that one implies the other in a diverse subject is certain among all.

11. To 3º: Action as action, or insofar as it is formally distinguished from passion, is a logical accident, that is, an accident in denominating, insofar as the denomination "agent" can be present or absent without the corruption of the subject. Thus it inheres in the agent by a logical and improper inherence, insofar as it is signified after the manner of something inhering while it extrinsically denominates the agent. Action as action, however, is not a physical accident, nor does it require physical inherence except identically by reason of passion, which it really identifies with itself. The reason is that action as action formally implies only the concept "from," that is, it does not imply being "in something," but being "from something," as St. Thomas frequently repeats in the cited passages. Hence inhering, or being "in something," does not belong to it except insofar as it is really passion. See Fr. Suárez, disp. 48, *Disputationes metaphysicae*, sect. 4, especially n. 15. The matter is otherwise with the name "eduction," which certainly imports a respect not only to the principle "from which," but also to the subject "in which," or "from which," as is clear from its definition. Hence "action" and "eduction" are compared as genus and species, or as an inadequate and an adequate concept of the same mode. Although action or eduction really inheres in the patient, it does not therefore give it the denomination "agent" or "educing," because it denominates in this manner only that "from which it is," not that "in which it is"; just as it denominates as "produced" only that "toward which" it is, and just as the volition of an external object does not denominate as "willed" the subject in which it inheres, but the object toward which it tends.

12. To 4º: The antecedent is true of acting immanently, but otherwise of acting transiently, except with the qualification to be added presently. "There is a twofold action," says St. Thomas, 1, p. q. 18, a. 3, ad 1: "one which passes into exterior matter, as heating and cutting; another which remains in the agent, as understanding, sensing, and willing. Their difference is this: the

first action is not the perfection of the agent that moves, but of the thing moved; while the second action is a perfection of the agent." Likewise, that which acts transiently is not intrinsically changed through the action; otherwise every mover would be moved, contrary to what St. Thomas expressly teaches with the Philosopher in 3 *De anima*, lect. 2, relying on this very principle, that "action is not in the agent as in a subject."

13. Nevertheless, even transient action is said in a certain manner to be a perfection of the created agent, not intrinsically and after the manner of a form, but extrinsically and after the manner of an end, insofar as such an agent is of itself ordered to manifest its fecundity, so as to conserve its own species or other related species through propagation; or, as St. Thomas says, q. 7, *De potentia*, a. 10, corp.: "Insofar, namely, as in the effect or passion or motion induced there is considered a certain good and perfection of the mover or agent, as is especially evident in univocal agents, which through action induce a likeness of their own species and consequently conserve, insofar as possible, the perpetual being of their own species." The Holy Doctor likewise confirms this there, ad 1 and 2. But this has no place in God, who is not ordered toward an external operation and does not regard an effect as an end. A created agent can also be said to be changed presuppositively when it acts, insofar as it must previously be affected by various dispositions, concerning which see tr. 2, disp. 3. But God does not need these. That a created cause does not move except insofar as moved is verified by reason of the innate inclination, which is a certain impression and motion of God, as we said with St. Thomas in tr. 2, final chapter.

14. Furthermore, transient action is called a mode of the agent insofar as it is essentially inseparable from it: both egressively, because it essentially has to issue from this agent rather than another, and connexively, because it can in no way exist when that agent does not exist. Yet it is not an intrinsic but an extrinsic mode. It also arises "from what is intrinsic" to the agent, not because it first exists formally within the agent and thence jumps or flies over to the patient, but because it first exists in the patient through the intrinsic efficacy of the agent's power. In this sense even created action and every effect arise from what is intrinsic to God. Nor must an intrinsic active potency be reduced to act through an intrinsic actuality, but only a passive potency, which imports incompletion and is therefore called a potentiality. Nor must every created active potency simultaneously be passive with respect to the same term or action with respect to which it is active, but only with respect to some prior disposition or application. This passivity suffices for it not to be pure act; indeed, for this purpose the logical passivity of existence, which it must receive from God, is sufficient.

Three Other Questions.

15. It is further asked, 1º, what is the specificative principle of action? The question concerns the extrinsic specificative principle from which the specific diversity of actions is taken and as it were derived, for a thing having a relation to another thing is commonly varied according to the variation of that other thing; just as acts of the intellect are varied by the object, acts of the will by the end, and unions by the variety of the extremes. Since, therefore, action, even prescinding from its identity with passion, implies an intrinsic relation both to the principle and to the term, the question is from which of them the species of action, or the specific diversity of actions, is taken. Some hold that it must be taken from the principle, others from the term, and others from both; and this threefold position has a foundation in St. Thomas, as may be seen in Fr. Suárez, disp. 18, *Disputationes metaphysicae*, sect. 3.

16. I say, 1º: The term is a sufficient specificative principle of action, such that wherever the terms are diverse in species, the actions likewise differ in species, even though there be no diversity on the side of the principle. Thus all authors hold, and rightly. For action is essentially and primarily of itself ordered to its term, and exists for the sake of that term. Hence physical action is related to its term as volition to its end and cognition to its formal object. But this order necessarily varies according to the variation of the term. Therefore, since it is so essential to actions, it cannot fail to render them diverse in essence, or in species. Hence the heating and illumination of the air, although proceeding from the same sun, differ in species.

17. I say, 2º: Diversity of principles also suffices to diversify actions in species, even if there is no diversity of terms. Thus our authors sufficiently commonly hold, and Fr. Suárez, loc. cit., does not reject their position, although he inclines more toward the opposite. It is proved because action no less essentially and no less primarily of itself regards the principle than the term, since the concept "from" is as it were the characteristic of action. Therefore, just as action is rendered diverse by diversity of term, so also by diversity of principle. Hence the production of fire by fire differs in species from the production of fire by the sun or by God alone, since one has an essential predicate that the other lacks, namely "to be the exercise of a univocal cause," or "of a second cause." Nor is it easy to believe that this difference is purely individual; for the exercise of a univocal cause differs

more notably from the exercise of an equivocal one than from the exercise of another univocal cause.

18. You will say: The production of fire by the sun regards the sun as productive of fire; but the sun, insofar as it is productive of fire, agrees with fire. Therefore that production regards the sun insofar as it agrees with fire, and accordingly is disposed just as though it proceeded from another fire. I answer by distinguishing the major premise: insofar as productive of fire equivocally, or through eminent containment, I grant; insofar as productive univocally, or through formal containment, I deny the major premise. Then I distinguish the minor premise: it agrees with fire generically, I grant; it agrees specifically, I deny the minor premise, and I distinguish the consequence in the same sense. Certainly eminent containment differs specifically, and more than specifically, from formal containment. Indeed it can differ by more than a generic difference, as is clear in God, who, insofar as He eminently contains creatures, differs by more than a generic difference from second causes. You will say again: An intentional action is not specified by the material object, but only by the formal object; but a physical action regards the principle as though materially, and the term, for whose sake the whole action exists, formally; therefore it is specified not by the principle but by the term alone. The major is denied by several authors. But whatever be true of it, I deny the minor, for action also formally regards the principle from which it arises. Hence it can be supernatural by reason of the principle alone, as if water were produced by fire divinely elevated. Therefore, although the entire action exists for the term as the end toward which it tends, the entire action simultaneously exists for the principle as the end whose good is sought, because the manifestation of a power is a certain good of the principle itself, as we saw in n. 13; and with respect to God it is also a certain commendation of His goodness, and therefore God does all things for His glory.

19. I say, 3º: Action insofar as it is eduction, or insofar as identified with passion, is likewise rendered diverse through the diversity of the patient. This assertion is proved in the same manner as the preceding one. Whether each assertion has place when the principle, whether active or passive, causes only through obediential potency is disputed by theologians; among their opinions it is very probable that actions or passions differ from this source in physical species, although they are said to belong to the same theological species. We are now principally speaking of natural potency. Hence, if accidents are received in the whole composite, the heating of water and the heating of fire differ in species, although they proceed from the same fire and terminate in heat of the same species. I say, 4º: It is probable that

physical actions can differ in species even from the mode of tending alone, at least if one is natural and the other supernatural, or both are supernatural. Thus the Eximious Doctor, loc. cit., n. 21, whom several others follow.

20. It is asked, 2º, whether the conservation and first production of the same effect must be really distinct actions. There is no doubt that several effects do not depend in their conservation upon their first producer, but are naturally conserved when the cause from which they first arose is absent or destroyed, as is clear in the conservation of living things, in the conservation of fire separated from the fire that produced it, in the conservation of heat remaining for some time in water after the fire is removed, and frequently elsewhere. In such cases it is certain that conservation is distinct from first production, since it essentially depends upon a distinct cause. This conserving cause, when no other cause similar to the first producer is substituted, is commonly believed to be God alone, who, as Author of nature, assents to the requirements of things and provides the conservation that things once produced demand until the contrary requirement of other things prevails. Nor is there any doubt that certain other effects naturally or essentially depend in conservation upon their first producer, as is clear in the conservation of an angel by God, of light by the sun, of a vital act by the potency, of the visual species by the object, and of cold recovered by water from the substance of the water. Why some effects rather than others thus depend upon their first producer cannot be explained by one reason common to all, for the reason varies according to the diverse character and nature of each. On this matter see the Eximious Doctor, disp. 21, *Disputationes metaphysicae*, sect. 3.

21. Concerning those effects, therefore, which naturally ought to be conserved, or in fact are conserved, by the same principles applied in the same manner by which they are first produced, the question is whether they are conserved by the same first action for as long as they remain, or whether after the first instant that action ceases and a new one succeeds it. The common and true position, proved by the Eximious Doctor in the cited disp. 21, 1, 2, denies that conservation is distinct from first production as regards the entity of the action. It is proved because, where the effect is the same, all the principles remain the same, and they are applied in the same manner, there is no reason why the same action should not persevere; and by this very fact after the first instant it will be conservation. Certainly it is incredible of itself that the illumination of the air by the sun should vary solely because of a change of time or instant, with no other change having occurred; or that the visual potency should change its action while the same application, the same species, and the same object persevere; and still more

incredible that the creation of an angel should have to perish after the first instant in order to leave room for another action. I said "as regards the entity of the action," for there is variation as regards extrinsic denomination, since the action is denominated "first production" only in the first instant, because this name connotes, or obliquely imports, the immediately preceding absence of the effect; nor is it denominated "conservation" except in an instant or time presupposing the previously possessed and uninterrupted existence of the effect. These denominations, however, are extrinsic, contingent, and separable from the entity of the action.

22. Hence you will infer, 1º, that even when production and conservation are in fact distinct, as in the examples of n. 26, the conserving action could have been the first production, and conversely. Nor is it an objection that production is called the extraction of a thing from non-being into being. For this is understood either of production insofar as it is contingently denominated first, or of extraction according to the intrinsic sufficiency of the action, so that the action of itself suffices to extract a thing from non-being into being and would extract it if it did not already find it extracted. Nor is it an objection that it is commonly said that less power is required to conserve than to produce for the first time. For in physical things this must be understood either of accidental conservation by removing contrary agents, or of mediate and indirect conservation through dispositions naturally necessary, insofar as, for example, less coldness is perhaps required in water for it to be conserved than for it to be generated, because water already existing defends itself by its own requirement. But conservation through immediate efficiency, concerning which alone we are speaking, demands no less power and influx of the cause than first production.

23. Hence you will infer, 2º, that an "instantaneous" action, for example sudden illumination, is not so called because it exists only in a single instant, but because it does not need temporal succession in order to be completed, since it is whole in the first instant, although thereafter also it endures whole. You will infer, 3º, that the conservation of an educed term does not differ from instantaneous motion otherwise than it differs from first production, namely only through the connotation of preceding absence implied by the name motion properly taken. But if conservation is compared with successive motion, it differs from it in the manner in which we said rest differs from motion, ch. 1, n. 10.

24. It is asked, 3º, whether an action can be produced through another reflex action by a principle from which it does not itself issue of itself. That this cannot occur naturally is commonly presupposed, because, since every action is the egress and production of itself from a determinate cause, it

needs no other production unless there is to be an infinite regress. That it can occur divinely is affirmed by Fathers Quirós, Peynado, and others; the contrary opinion is commonly presupposed. Omitting other arguments, it can be urged thus: An action by virtue of which a term would issue from another agent whose action it itself is not is repugnant; but such would be the action of agent A if it terminated at the action of agent B; therefore an action terminating at another action is repugnant. The major seems certain from the concept of action. The minor is proved: In that hypothesis, by virtue of the action of agent A its term would exist, namely the action of agent B. But for this action to exist is most formally for it to issue from agent B, since its whole essence consists in issuing from such an agent. Therefore, by virtue of the action of agent A, its term would issue from agent B, whose action it itself would not be, as is supposed. Or otherwise: the action of power A would not be the action of power B, as the question supposes; yet on the other hand it necessarily would be. Therefore it simultaneously would be and would not be. The latter minor is proved: The ultimate formal determination by which an effect arises from active power B is necessarily the action of that power; but the action of power A would be the ultimate determination by which its effect, namely the action of power B, actually existed, and therefore by which it arose from power B, since in this action to exist and to arise from such a power are formally the same. Therefore, and so forth.

CHAPTER III.
On Creation.

1. Creation is defined as "the production of a thing from nothing," that is, from no presupposed subject, or from no material cause; and from this its distinction from eduction is taken, as has often been said. Concerning it, it is now asked, 1º, whether creation requires infinite power in a connatural and principal cause, or whether a creature is possible which possesses a principal power of creating, in the sense in which a second cause can and commonly is called a principal cause. That no such creature in fact exists is plainly gathered from the doctrine of Faith, as may be seen in Fr. Suárez, disp. 20, *Disputationes metaphysicae*, sect. 2; and the ancient philosophers likewise presupposed this as self-evident, employing the maxim: "From nothing, nothing comes." Durandus seems to have judged such a creature possible; but almost all philosophers and theologians judge the contrary, preceded by the Holy Fathers of the Church, who frequently teach that to create is proper to God alone, and thence prove against the Arians the divinity of the Word,

because He possesses the power of creating. This position must be held entirely, even if no other reason existed besides the weight of such great authority. A sufficiently efficacious proof from reason, however, is difficult, as all acknowledge. St. Thomas, Scotus, and others suggest many, which Fr. Suárez wisely examines, loc. cit.

2. It will suffice here to indicate a threefold proof. 1º If the power of creating is not above the concept of a creature, there is no reason why the rational soul in the offspring should not in fact proceed from the mother's soul; yet neither Durandus nor anyone else admits this. The proof is that in the mother's soul there is equality of perfection with the offspring's soul, and the latter is produced only in the presence of the former. Thus, because to operate through eduction is not contrary to the concept of a creature, we rightly attribute to created causes those effects that we see always produced in their presence, provided they do not otherwise exceed the perfection of those causes. For this reason we say that fire is produced by fire; and a most probable position holds that the soul of a foal is generated from the soul of the mare. 2º A creature in acting depends upon God more than art depends upon nature; but art so depends upon nature that it cannot operate except upon matter or a subject supplied by nature. Therefore a fortiori a creature so depends upon God in acting that it cannot act independently of matter or a subject created by the power of God alone.

3. 3º The ability to operate without the help of another efficient cause is a privilege of God alone, communicable to no creature. Therefore the ability to operate without the help of a material cause is likewise a prerogative of God alone. The consequence is proved both because experience establishes the creature's dependence in operating upon a material cause no less, indeed more, than upon a co-efficient cause; for dependence upon God's concurrence is gathered not from experience but by reasoning. It is also proved because the limitation and potentiality of the creature persuade us of the same thing. For just as no creature is possible which in being is not somehow potential, so no creature is to be judged possible which in operating does not depend upon passive potency, since the mode of acting follows the mode of being. Hence external creation, or creation in second act, although it is a formally finite mode of acting, is nevertheless argumentatively infinite, because it presupposes and argues to the infinity of the power from which it connaturally proceeds. Thus an action dependent upon only one efficient cause, although itself finite, argues to infinite power.

4. It is asked, 2º, whether a creature can at least be an instrument in creating. I answer, 1º, with Fr. Suárez, cited disp. 20, sect. 3, that a creature cannot be a connatural instrument, that is, an instrument instituted and

ordered by its nature toward creation. For, first, it cannot be an instrument of a created principal and creating cause, which is impossible, as we have seen. On the other hand, it cannot be a connatural instrument of God, because a connatural instrument is always instituted either to supply some defect or disproportion of the principal cause, or at least so that in its company the principal cause may operate more conveniently and not fatigue its powers. But none of these can have place with respect to God.

5. I answer, 2º, that a creature can concur toward creation through obediential potency, that is, as an instrument divinely elevated. Thus Fr. Suárez, ibid., and commonly our authors, whom Fr. Quirós cites and follows, disp. 62, sect. 2, n. 23. The reason is that no contradiction appears in this elevation; rather, God's dominion is commended through it, as is clear from what was said in tr. 2, disp. 6, c. 5, §§ 4 and 5, concerning the elevation of anything whatever to anything whatever. From that same passage anything that occurs as an objection in the present matter can also be solved. Moreover, although according to common theology a creature connaturally capable of seeing God is repugnant, nevertheless a creature capable of seeing God through elevation does not repugn. Therefore the same applies here. Moreover, the nobility of an operation is not attributed to a purely obediential power, nor is it commensurated with it or owed to it, but to the principal cause alone. Therefore, that the nobility of creation greatly exceeds every created power indeed proves a disproportion of the creature for the office of principal cause, but not for the office of a purely obediential instrument. Hence you may infer that an obediential potency capable of being divinely elevated to creating is found even in creatures that actually exist, because it is no more difficult in these than in other possible creatures.

6. It must nevertheless be noted that elevation to creating can be effected only through an extrinsic help, as we noted loc. cit., n. 42, and not through some infused quality to which creation would be connaturally due, in the manner in which the intellect is elevated to the vision of God. The reason is that that created quality, or infused co-principle, would have a connatural power for creation; but we have said that such a power in a creature is repugnant. And perhaps St. Thomas can be explained in this sense whenever he denies that a creature can be an instrument of creating, namely, that he is speaking either of an instrument connatural of itself or of an instrument elevated through something intrinsic to which creation is connatural, as the production of the vision of God is connatural to the light of glory.

7. It is asked, 3º, in what creation, or creative action, consists. Some place creation in the divine decree; others in the entity of the term; others in

the complex constituted from God's decree and the produced term; others in a mode distinct from the decree and the term. I say, 1º: Creation does not consist in the divine decree. It is proved because, since the divine decree exists from eternity, if it is formal creation it will denominate the angel created from eternity, just as it denominates him willed from eternity, and just as the union, location, and eduction of some form, if they existed from eternity, would render that form united, located, and educed from eternity. But the consequence is contrary to the Faith, by which we believe that all things were created in time. You will say: The decree indeed denominates God creating from eternity, but it does not so denominate the angel created that the subject of this denomination exists from eternity; rather, the denomination "created" exists only as regards the form, just as occurs in the denomination "known" or "willed," which is given from eternity with respect to the angel. But against this, 1º: Then at least the denomination "creating" in second act exists from eternity as regards both subject and form; therefore God truly and properly created things from eternity, whereby the statement of Gen. 1 falls: "In the beginning God created," and so forth.

8. Against this, 2º: Then at least the angel, with the same propriety by which he is said to have been known, willed, and predestined from eternity, will be said to have been created from eternity; which is likewise contrary to the judgment of all. Against this, 3º: Although knowing or loving from eternity does not imply the eternal existence of the object, because a purely intentional tendency can terminate at an object that does not yet exist, it is otherwise with creating from eternity. For to create is actually to produce, to determine the effect ultimately so that it physically exists, to posit it actually in reality and outside the power of the cause, and to give it its physical being in second act. These notions from their very terms imply the existence of the effect; otherwise its existence will not be implied by the ultimate determination of uniting, locating, or educing either. Nor is it an objection that the divine decree is not a purely physical action, but simultaneously an intentional action which can regard only instant A, for example, for which and not for the other instants it implies the effect. It is not an objection, I say, both because, although it is also an intentional action, it nevertheless has no less force, efficacy, and energy than a purely physical action, and therefore does from eternity what a purely physical action existing from eternity would do; and because the fact that it regards instant A proves the eternal existence not only of the angel but of the instant itself, which plainly is repugnant, since that creation would be the actual positing from eternity of this complex: "The angel exists at instant A."

9. Hence you will infer, 1º, that a creation of a thing not existing from eternity that is indistinct from the decree or from any other divine predicate whatever is entirely impossible. But when St. Thomas denies that God acts or creates through an action distinct from Himself, he is not speaking of formal and physical creation. For he expressly distinguishes this from the act of the divine will, 1 *Summa contra Gentiles*, c. 79, and also from the produced term, q. 3, *De potentia*, a. 3, where he calls it "passive creation," namely as regards its existing, because it does not exist in God but in the term, although in denominating it can also be called "active," because it extrinsically denominates God "creating." Therefore he identifies with God only radical, or purely intentional, creation, which in the cited q. *De potentia* he calls "active creation," that is, creation standing on the side of the active power as its ultimate application in first act.

10. For whenever a rational agent freely operates *ad extra*, it employs a twofold action: one internal and intentional, which is the command of the will applying and determining the executive power to operating; the other external and purely physical, which is the formal positing itself of the external work. The latter, because in existing it stands on the side of the work, can be called the passive production of the work; but the former, because it remains in the agent, is called the active production of the external work, not formal but radical or virtual, because it determines the executive power toward that work and induces its external positing. Hence it is commonly called an action formally immanent and virtually transient. Since, therefore, the command of the divine will is not distinct from the essence of God, St. Thomas rightly denies that active creation is distinct from God.

11. You will infer, 2º, that the parallel of the efficacious decree, which from eternity is metaphysically connected with the creation of the angel although it does not imply it except in time, does not harm us. For that connection does not have the mode of an actual positing, but the mode of a command which, according to the agent's choice, can be referred to one time or instant rather than another; nor does it denominate God actually causing or positing something in reality, but only eternally willing to cause it in time. Thus an act of faith concerning the Antichrist who will exist at the end of the world is no less connected with him than is the generation of the Antichrist himself; nevertheless, the generation cannot precede its term in time as that act can. You will say: Once the decree is posited, no indifference remains as to whether the angel is produced or not; therefore any further determination is superfluous. But precisely the same objection can be pressed concerning the decree by which God wills to concur with fire toward burning. Moreover,

I distinguish the antecedent: no indifference remains because it is presupposed to have been removed mediately and radically, I grant; because it is presupposed to have been removed immediately and formally, I deny the antecedent and the consequence. Accordingly, the decree removes the indifference because it implies the ultimate determination; otherwise it would not remove it.

12. I say, 2º: Creation is not identified with the term. As regards a term creatable only divinely, such as Eucharistic quantity, no one dissents, since such a term can be separated from its creation and indeed naturally must be. But as regards a term creatable of itself, such as an angel, it is proved because a term which of itself is indifferent, or not essentially repugnant, to being created in various ways and by various causes does not identify with itself its own creation. But an angel is indifferent to being created either naturally by God alone or supernaturally by God and a creature simultaneously as an instrument divinely elevated. Therefore, and so forth. You will say that from this it is proved only that an angel can be divinely produced by two total creations, one identified with himself and depending upon God alone, and another as it were reflex, distinct from him and proceeding from God and a creature simultaneously. But against this, 1º: That a creation of a creation, and generally an action of an action, can be given is a very difficult position, rejected by most authors and sufficiently attacked by us in the preceding chapter.

13. Against this, 2º: Although it is probable that effects which of themselves necessarily inhere in their active causes, such as vital acts, are not distinct from their own production, to say this of an absolute substance such as an angel seems foreign to common judgment. For the concept of an absolute and subsisting substance is far different from the concept of action, outflow, emanation, and egression, which concepts openly present the character of a mode. Nor is it an objection that an angel identifies with himself independence from a subject and dependence upon God. For dependence upon God, if taken for the need or inability to exist without God, is identified with every creature. Hence, if such dependence is production, every entity will be the production of itself by God, which no one has ever said. But if it is taken for actual reception, or the exercise of receiving one's being from God, it is false that it is identified with the angel. The same must be thought of independence from a subject, which is likewise identified with the angel when taken for not needing a subject; but it is otherwise when taken for the reception of one's whole being without reliance upon a subject.

14. I say, 3º: Creation is not identified with the complex constituted from God's decree and the produced term. This too is the common position, and rightly so. For if creation is identified with the term, it is identified with the term alone. If the decree awaits the term in order to be constituted in the being of creation, the term alone will be the ultimate determination by which God is creating in second act; but creation is nothing other than a determination of this kind. Moreover, created being as such is adequately distinguished from uncreated being, just as finite being as such is distinguished from infinite being; but created being as such imports creation. Therefore creation is adequately distinguished from uncreated being, and consequently from the divine decree. This reasoning proves a fortiori what we said in the first conclusion.

15. I say, 4º: Creation consists in a mode distinct from the cause and the term. Thus our authors commonly hold with the Eximious Doctor, cited disp. 20, sect. 5. The proof must be taken from the exclusion of the other opinions. To this is added the parallel of eduction, which is therefore posited in a distinct mode because the term is indifferent to being produced, at least divinely, by various causes and in various ways; but a similar indifference is found in a creatable term, as we have seen. It is objected: If creation is a mode, it will be an accident; therefore it will have a subject of inherence, for "the being of an accident is *inesse*." But it can have no subject other than the term, for example the angel, who will therefore precede his own creation as a material cause. I answer: The creation of an angel or another substantial term perhaps is not an accident, but a substantial mode, as we said concerning the eduction of a substantial form in tr. 1. But because the difficulty remains concerning the creation of an accident, for example quantity, it must be said that an accident as such requires inherence, not inherence strictly so called, namely one importing sustentation and material causality, but inherence broadly taken for existence-in, or existence in another, which prescinds from whether it is in another as in a subject of sustentation, of adhesion, or of pure information. Taken as thus prescinding, it suffices to verify *inesse*.

16. Creation, therefore, is in its term not as in a subject of sustentation by which it is materially caused, but as in a subject of adhesion to which it is affixed or intrinsically adheres, just as eduction also adheres to its own term; or, if you prefer, as in a subject of pure information, which does not require priority of nature. See what was said in tr. 1, where we treated of the subject of union. Hence it must be denied that an angel or another created term precedes its own creation by a strict priority of nature founded upon causality. It has only a priority of non-mutual connection, or in the

consequence of subsisting, which Aristotle also comprehends under the name of priority of nature broadly taken, insofar as this individual angel can stand without this individual creation provided another is substituted, while conversely this creation cannot stand without this angel. This priority contains no difficulty, as is clear in an educed term, which likewise commonly is prior to its own eduction. Nor does St. Thomas understand any other priority when he attributes priority to the subject of creation. You will say: Creation precedes the term, since it is a way toward it; therefore at its prior sign it exists without a subject even of adhesion. I answer by distinguishing the antecedent: it precedes purely as that by which, or improperly, I grant; otherwise, I deny the antecedent and the assumed consequence, namely that creation has its term separately from the term itself. See what we said generally concerning action in tr. 2, where we treated of priority of nature.

On the Creatable Term.

17. It is asked, 4º, which terms require creation or are capable of it. All agree that an angel, a rational soul, and prime matter are connaturally created and according to their proper requirement. Add creation itself, which is also the creation of itself, just as every action is the production of itself. It is likewise clear from what was said in tr. 1, disp. 4, that the other forms, substantial and accidental, are not connaturally created but educed. A doubt nevertheless remains whether terms connaturally educible can be divinely created, and conversely.

18. I say, 1º: Every educible term distinct from its eduction can be divinely created. Thus the common position holds, at least as regards non-modal terms. As regards an absolute accident, the assertion is clear from the mystery of the Eucharist, where the quantity of the bread is conserved through creation and therefore could have been first produced through it. The same reasoning applies to a material substantial form, which certainly depends no more upon a subject than an accidental form does. As regards modes, for example human union, it is proved because, although union is essentially inseparable from matter and depends upon it through itself as upon a subject of adhesion or information, nevertheless it does not through itself, but through a distinct eduction, depend upon matter as upon a subject of sustentation and a material cause. Therefore, if it is not educed but created, nothing follows contrary to the concept of creation, which requires only that it render the term independent of a presupposed subject as material cause. On the other hand, nothing appears, and this is the reason

for every other educible form, by which union is prohibited from being more than naturally connected with its own eduction; but a natural connection can be divinely frustrated.

19. I say, 2º: Eduction cannot be divinely created, even if an action of an action is not repugnant generally. The assertion is against the recent authors whom Fr. Peynado cites and follows. It is proved thus: It is repugnant that a term by virtue of creation should have to depend upon a presupposed and sustaining subject, for nothing is more contrary to the concept of creation; but eduction, if it were created, would by virtue of creation have to depend upon a sustaining subject. Therefore, and so forth. The minor is proved: Eduction, if it were created, would by virtue of creation have its own being, as is certain; but the being of eduction is to depend upon a presupposed and sustaining subject, since eduction is passion and sustentation, as the adversaries suppose. Therefore, and so forth. By the same argument it is proved against those same recent authors that creation cannot be divinely educed. For a term which by virtue of eduction would have independence from a presupposed subject is repugnant; but creation, if it were educed, would by virtue of eduction have its own being, which is independence itself from a presupposed subject.

20. I say, 3º: No term connaturally creatable can be divinely educed. The conclusion, as regards the mode of creation itself, has just been proved. As regards an angel and prime matter, it is held by almost everyone, because eduction causes the term to be received in a subject; but neither prime matter nor an angel can be received in any subject, prime matter because it is the first subject, and an angel because it is a complete being. As regards the rational soul, some dissent, whom Fr. Peynado cites and follows. But the stated conclusion is common among the Thomists and our authors; and, omitting other arguments which the adversaries solve not incongruously, it is proved thus: An action inferior in its genus cannot suffice to produce a term to which, from its own nature and its own merits, a superior action is due. But creative action is due to the rational soul from its own merits, and eduction is inferior to it in its genus. Therefore eduction cannot suffice to produce the rational soul.

21. The major is proved, 1º, by examples. For by the same reason a natural action cannot suffice to produce a supernatural term; nor can a material cognition or perception suffice to attain a spiritual object. 2º Because if a superior action is due, the term needs it in order to be posited in reality; but an inferior action cannot suffice for that office for which the term needs a superior action. Therefore, and so forth. You will say: The need for creation which the rational soul has is not essential but natural, and can

remain divinely unsatisfied, just as the need for a form which matter has. But you say nothing. For although God can deny to the soul the creation which it needs in order to be posited in reality, He nevertheless cannot cause an action less than creation to suffice for that office. Thus God can deny to matter the form which it needs in order to be completed; nevertheless He cannot cause matter to be completed by something less than a form. Thus also God can deny the supernatural action which a supernatural term needs in order to be produced; nevertheless He cannot cause a natural action to suffice for that office. The point is pressed: Creation is not a superabundant action, but one purely sufficient for the soul to be posited in reality; therefore an action less than creation cannot fail to be insufficient for this office.

22. Hence the argument of Fr. Hurtado will receive force, namely, that nothing can be substituted for another with pure sufficiency unless it contains its force either formally, equivalently, or eminently; but eduction contains the force of creation in none of these ways. Nor does the response of Fr. Peynado suffice, namely, that eduction would not be substituted for creation as regards all its offices, but only as regards one: it would be substituted as regards the office of positing the soul in reality, but not as regards independence from a subject. This does not suffice, I say, because the office of positing the soul in reality is an office demanding the whole force and whole efficacy of creation as such and as independent from a subject; otherwise the whole perfection of creation would not be due to the soul. Therefore no action can be substituted for creation as regards that office unless it possesses equal or superior efficacy. This is again confirmed by the examples in n. 21. You will say: A supernatural eduction would not be inferior to creation because it would belong to a superior order. But against this: Supernatural eduction, although it would be superior to creation in a qualified respect, would always remain absolutely inferior in the genus of action; for creation always imports a mode of acting that no eduction can equal. An indication of this is that for supernatural eduction there can be a created, connatural, and principal power, as is clear in the light of glory with respect to the beatific vision; but not for creation. Thus material cognition, even if posited as supernatural, always remains inferior to intellection in the genus of perception and incapable of terminating at a spiritual object which natural intellection attains.

23. From what has been said, the foundation of the contrary position falls, namely, that just as a material form, although it naturally requires to be educed, can be divinely created, so conversely can the rational soul. The parity must be denied. For from the fact that a more perfect form can supply

the office of a less perfect one, the converse is not rightly inferred. Otherwise, just as a natural thing can be produced by a supernatural action, and just as a corporeal object can terminate a spiritual cognition, so the converse could occur.

24. Finally, our position is confirmed thus: Creation from its genus presupposes and essentially requires a creative power as such, and can in no way arise from an educive power as such; therefore the rational soul, in order to be posited in reality, no less, if not more, presupposes and requires the same power. The consequence is proved because naturally due creation does not require so great a power for its own sake, but for the sake of the term to which it is due, since it exists wholly from the merits of the term and has its whole perfection for the sake of that term. Here the Aristotelian maxim has place: "That by reason of which anything is such is itself more so." Thus a term to which a supernatural action is due no less presupposes and requires supernatural power than does the action itself.

DISPUTATION II.
ON PLACE AND TIME.

CHAPTER I.
On Real and Imaginary Place, Where the Vacuum Is Also Discussed.

1. Place is known of itself as regards "whether it is," but is difficult to explain as regards "what it is." For nothing is better known than that every body has its own "where," or peculiar place, so that it is "here" and not "there," or "in this place" and not "elsewhere." Yet it is difficult to explain what reality is signified by being "here, there, in this place, elsewhere, everywhere." A twofold space is commonly distinguished, real and imaginary. Real space is bodily extension actually existing, or quantity actually extended, insofar as it is fixed in a determinate manner. Imaginary space is that immobile and interminable emptiness which we imagine to have preceded the creation of things, as capable of receiving the extension of the corporeal world within it, and now to be occupied in great part by the world; yet in such a way that beyond the outermost sphere, or beyond the Empyrean Heaven, an emptiness without limit extends and leaves room for another world, or other worlds, to be constructed; and likewise in such a way that by Divine power this whole world could be moved within it and transferred elsewhere, while the part it now occupies remained empty and immobile as before. In this emptiness, or imaginary space, we apprehend

certain determinate distances and dimensions just as though it were real space. But the question is, what is this emptiness?

2. I answer, according to the doctrine of the Eminent Doctor, disp. 30 and 51, *Met.*, that purely imaginary space, that is, space not yet filled or occupied by any body, is actually nothing on the part of the object. Yet it is something in potency, or something conditionally existing, insofar as real quantity and fixed extension can exist there where we conceive an immobile part of emptiness to exist; or, lest one quibble over "there" and "where," as though they denoted a presupposed place, insofar as that purely imaginary "there" can become a real "there." But if it is taken as subject to our imagination, purely imaginary space is a being of reason with a foundation, insofar as it is conceived as an immobile privation capable of dimensions, as though it were a true quantity, the foundation being taken from the possibility of real quantity fixed there. Hence imaginary space, taken specifically or fundamentally, differs from real space only as a possible man differs from an existing man. And because a greater and ever greater real space beyond this world is possible without end, imaginary space is therefore called infinite or interminable.

3. Place is defined from Aristotle, l. 4, c. 4, as "the first immobile outermost surface of the containing body"; that is, the outermost surface of a body surrounding another, which is immediate or contiguous to the contained body, insofar as it is immobile. Thus the concave surface of a vessel full of water is the place of the water. Likewise, the immediate surface of the air surrounding the terrestrial globe is the place of that globe. Place so defined is called "proper and immediate"; for "mediate and common" place is any thing that contains mediately, or any space within which many things dwell, in which sense a river is called the place of fish, a city the place of its citizens, and so forth. Certain properties are commonly attributed to place, such as being healthful or harmful, natural or violent. But place is now considered only insofar as it can be the terminus "from which" and "to which" of local motion. Accordingly, two things especially belong to the notion of place: 1º adequation, or commensuration with the thing located, after the manner of container and contained; 2º immobility, for a located thing, while it is moved, necessarily leaves the place in which it was, which would not happen if the place moved, or could move, together with the movable thing.

4. But in what does this immobility consist? Or how does it agree with Aristotle's definition? For no surface of a containing body is immobile. A vessel full of water can be transferred elsewhere while retaining the same surface. Likewise, the surface of the air surrounding a tower is constantly

changed, as is the surface of the water surrounding a rock situated in the middle of a river. Finally, there is no surface that could not be moved at least by Divine power. It must be said that the surface of a body, under the notion of a place containing another, is formally constituted by its intrinsic "where," or by its proper ubication, which will be discussed immediately, corresponding to a determinate part of imaginary space. And since an ubication is essentially immobile, that is, essentially incapable of migrating elsewhere, it follows that the surface of the surrounding body, although taken specifically or materially it is movable, nevertheless formally, insofar as it has such an ubication, is immobile. It also follows that the same surface, by varying its proper ubication, varies in its being as a place with respect to the contained body, and when transferred elsewhere is now formally another place. Hence water truly and formally changes place when the vessel is moved. Likewise, an immobile tower, through the variation of the surrounding air, physically changes the place defined by Aristotle, although morally or mathematically the place succeeding another with the same correspondence to imaginary space is regarded as the same.

5. It must nevertheless be known that, besides the place defined by Aristotle, which is called "extrinsic place," there is another place more proper and intrinsic to each thing, which is called "intrinsic place," and also the thing's where, ubiety, ubication, and presence. For if God, while preserving a tower immobile, annihilated every body around it, the tower would not be in an extrinsic place, and yet would truly remain located: both because it would not be nowhere, and because it could be moved by God, by which motion it would leave the place it had. And indeed it would remain in the same place as before, since it would remain entirely immobile. Therefore, besides an extrinsic place, it previously had another, intrinsic place, which it still retains. Likewise, the convex surface of the Empyrean Heaven is not extrinsically contained by another surface; and yet it is somewhere, and could be moved by God and located elsewhere. Similarly, if before the world God created a single man, that man would not be nowhere, although he would be surrounded by no surface. Therefore this intrinsic place, or ubication, is the terminus which is acquired and abandoned of itself by local motion; for extrinsic place is said to be acquired or abandoned only insofar as the ubication of the movable thing contiguous to it is acquired or abandoned.

6. The formal effect of ubication is to locate a thing determinately, or to constitute it here rather than there. But if ubication does not require an extrinsic place, what does it mean to constitute a thing here and not there? A fairly accepted explanation is that this consists in the fact that ubication

constitutes a thing as ultimately determined to found precisely such distance or lack of distance from other things. I admit that it is proper to ubication to found distance or lack of distance. But unless something further is added, the matter remains obscure or ambiguous. For while a man is moved, body and soul change their ubications, and yet retain the same lack of distance from each other; just as the head and chest retain the same distance from each other. For this reason many add that it belongs to ubication to determine the distance of things not only among themselves, but also at the same time in relation to fixed points, or the poles of the world, so that A's being here and B's being there consists in A and B being determined to precisely such a distance, both from each other and from the poles of the world through such determinate lines. But there are objections. 1º No one thinks of the poles of the world when he clearly conceives a thing as being here and not there. 2º The pole itself has an ubication by which it is fixed there and not elsewhere; but the same question remains about this. 3º Either the discussion concerns real poles, and my ubication does not depend upon them, since it would equally constitute me here even if I alone existed and every other thing were annihilated; or it concerns imaginary poles, and then recourse is already being had to imaginary space, which the authors of this explanation wish to avoid.

7. It must therefore be said that the formal effect of ubication is "to fix a thing in one part rather than others of imaginary space." Hence ubication in the abstract can be defined as "the ultimate determination of each thing by which it is fixed in one part, etc." This explanation is clear and easy to grasp, and very consonant with the common manner of speaking and apprehending. The sole objection is that imaginary space, if taken as subject to imagination, is a being of reason to which real place does not have an order; but if it is taken as it is in itself, or fundamentally, it is actually nothing, nor is it anything in potency except the extension of quantity which can be produced as thus fixed or located, and which in this way involves its own ubication. Hence ubication will be defined through itself, or one ubication through another. I answer 1º: imaginary space is taken in the former manner; nor is it unfitting that, because of the imperfection of the human mind, real place cannot be clearly explained or defined by us except through an order to a being of reason, although of itself it has no order to that being and is known without such an order through proper species by God and by an Angel. I answer 2º: imaginary space may also be taken fundamentally; and thus the sense of the definition will be that ubication fixes a thing in the manner in which fixed quantity, as possible, furnishes us a foundation for imagining such an immobile part of emptiness. Thus,

indeed, ubication will be defined through ubication, but under another concept better known to us, namely under the concept of that which founds the being of reason in question. I would not, however, deny that the poles of the world and the center of the earth may be taken as the extrinsic specification, relative to us, of various ubications.

8. From what has been said you will infer 1º that the ubication of a thing is not of itself connected with a real extrinsic place. Hence the denomination "existing in a real extrinsic place" is constituted by the contiguous ubications of both bodies, the containing and the contained, and is partly intrinsic and partly extrinsic to the thing located, as is the denomination "coexisting" or "equal." But the denomination "ubicated," or "existing in an intrinsic place," is wholly intrinsic to the body or thing located, since it can be preserved without any extrinsic constitutive element, from what was said in n. 5. It must nevertheless be noted that a thing is not, nor is it fixed, in an intrinsic place as in a receptacle or in some extrinsic terminus of fixation; rather the word "in" is taken intransitively, or in the genus of formal cause, so that it means the same as that the thing is intrinsically located through ubication as a form. In this sense substantial form is said to constitute matter in being, or in complete act, or to fix it in the determinate species of a physical body. You will infer 2º that ubication is immobile even by Divine power, or essentially incapable of locating a thing elsewhere, since it is the very formal reason for existing here rather than elsewhere. Hence, if a thing is conceived as withdrawing even a finger's breadth from such a part of imaginary space, by that very fact it is conceived as losing its prior ubiety and acquiring another.

9. You will infer 3º that ubication founds the distance and lack of distance of things. For distance consists in the ubications of things between which there is a dimension of real or imaginary quantity. Lack of distance, if it is by penetration, consists in the ubieties of distinct things corresponding to the same part or point of imaginary space; but if it is by contiguity or continuity, it consists in immediately adjoining ubieties without any interval, even imaginary. Nevertheless, not every ubiety requires distance or lack of distance that is actual on the part of the terminus, except lack of distance from God, since it does not require the coexistence of another thing. It suffices that it absolutely and ultimately determine the thing such that, without a new change of itself, it will be thus distant or not distant from other things if they exist, or whenever they exist. In no other way does the Divine immensity, which is as it were God's ubiety or ubiquity and is really identified with Him, render God essentially determined to be without distance from, and intimately present to, all things whenever they exist,

although of itself it does not imply their existence. In this conditional sense ubication may be said to affix a thing even to an extrinsic place, insofar as it determines that, on condition that an immediately ubicated surface of a surrounding body exists, the thing will be in it as in an extrinsic place.

Certain Doubts.

10. Concerning what has been said, doubt 1º: whether God exists in imaginary spaces. Many deny it; but the more common opinion affirms it with Fr. Suárez, d. 30, *Met.*, s. 7. The disagreement seems in great part verbal. It cannot be denied that God's immensity is not contained or circumscribed by the space of this world. For God truly is wherever He can be; otherwise He could be moved locally or undergo some change. But God can be wherever He can act, and He can act outside this world, where there is no space except imaginary space. Suppose that God creates, as He certainly can, another world separated from our world by some interval or emptiness. God would then be most present to both worlds. I ask whether He would at the same time be in the intervening emptiness. If this is affirmed, then God would already be in a space altogether empty, where no created being existed; consequently He can be in every imaginary space. If it is denied, God would then have discrete presences distant from one another, which is repugnant. On the other hand, it cannot be said absolutely that God is positively present to purely imaginary space, because He is not thus present to nothing, nor to a merely possible being; for no one is said to be positively present to another thing which is not in turn positively present to him.

11. It must therefore be said that God is in imaginary spaces, taken fundamentally, or is present to them, in a twofold negative sense: 1º insofar as His immensity is not confined within the limits of this world; 2º insofar as it essentially excludes positive distance from every thing or real space producible outside this world, if it should be produced, so that no possible ubication can be conceived so remotely distant that, if it existed, it would not be present to God. And this suffices for God to be truly said, according to our manner of conceiving, to be in imaginary spaces. Yet this lack of distance, or exclusion of distance, consists in something positive on God's part, namely the attribute of immensity, which is as it were God's intrinsic place, by reason of which God before the world and from eternity was, as it were, located in Himself, just as He now is both within and outside the world.

12. Doubt 2º: whether ubication is really distinguished from the thing located and from extrinsic place. The most common opinion rightly affirms

it. First, because local motion, since it is a true and real action, produces some terminus when it acquires a "where"; but it does not produce the extrinsic place nor the thing which is located. Second, because a thing is not in such a place through itself; otherwise whenever it existed it would always be there. Nor is it there through the coexistence in reality of itself and such a place, since the thing and this place can actually exist even though the thing is not in this place. Here also apply the arguments which we gave in tract. 1 for the distinction of union from its extremes. Nevertheless, ubiety is distinguished only modally, because its whole quiddity is ultimately to determine a thing to be here rather than elsewhere, which is the function of a pure mode. It may be said: if there is a mode of ubiety distinct from the thing, the thing will be prior to it, since it is its material cause and often also its active cause; but at the prior sign the thing is already somewhere, both because, if it already exists, it is not nowhere, and because being somewhere is a prior condition for causing. I answer: being somewhere is a condition for causing other effects besides ubiety itself, as we have said elsewhere. Nor at the sign prior to ubiety is the thing nowhere except precisively, insofar as that sign is constituted neither by any ubiety nor by its absence, although it is connected with some ubiety. Nor is such a sign an instant of time, but the potency of a cause really distinct from its effect; and this distinction is entirely compatible with the fact that at no moment of time can the thing exist without some ubication.

13. Doubt 3º: whether an actually existing thing can be absolved from every place, at least by Divine power. From what has been said, it is clear that it can be absolved from every real extrinsic place, as in fact occurs in the surface of the outermost sphere. But some hold that a thing can by Divine power be absolved from every intrinsic place, so that it has no ubiety by which it corresponds to any part of imaginary space. The most received opinion denies this. First, because it seems impossible that a thing actually exist and yet, if sought throughout all imaginary space, be found nowhere. Second, because an actually existing thing must be present to the immensity of God; for this immensity cannot fail to be most present to all existing things, which cannot be conceived without their mutual presence. But the thing cannot be present to immensity everywhere, or in every imaginary place, otherwise it would be immense and would no longer be absolved from every place, but rather bound to every place. Therefore it must be present in some determinate part of imaginary space, and consequently through some ubiety.

14. It is objected: a thing exists prior to its ubiety; therefore, once the existence of the thing is posited, the production of ubication can be

suspended. The consequence is proved: both because, generally, what is prior can exist without what is posterior; and because God can deny creatures His concurrence for every operation; and because the thing existing at the prior sign is already present to God's immensity. I deny the consequence, if the discussion concerns every ubiety so that none at all is produced. To the proof: the rule "what is prior, etc." admits exceptions; for a cause is prior to its effect and to the absence or contradictory of that effect, and yet it cannot exist without one or the other. Therefore it must be seen whether the essential connection of the prior with the posterior is proved from elsewhere, at least with the posterior taken indeterminately as one or another, as in our case. If God denies a creature concurrence for every operation, it will be necessary that He alone produce some ubiety of it for as long as He wills the creature to exist. At the sign prior to ubiety, however, the creature is present to immensity connectively, but not formally; this signifies only that the creature's presence to God is not the cause of this presence, nor a prior condition for the presence itself.

15. Doubt 4º: whether every entity besides God has a distinct ubication. This must be affirmed absolutely, except for ubication itself and its production, which are ubicated through themselves, lest we proceed to infinity. In all other things there is the reason of indifference to varying the "where," which consequently must be distinguished from the entity of the things. Hence an Angel, and every created spirit, has its own finite and limited "where," which can be varied and can remain without any body or extrinsic place, as the Eminent Doctor excellently demonstrates and explains, d. 51, *Met.*, s. 3 and 4. And if the ancients sometimes deny that spiritual things are in a place, they speak of extrinsic place as defined by Aristotle, namely insofar as it implies the contact of the containing body with the contained thing and a commensuration of part with part. For an Angel can neither be touched nor has parts. Hence he is not in real space except through intimate presence and lack of distance by penetration, or also insofar as his "where" exists within the limits of some space. In this way spirits truly are in Heaven and in Hell, as Faith teaches.

16. Doubt 5º: whether a form, substantial or accidental, is ubicated through the ubiety of its subject. The more common opinion denies this, because very often, when the form is changed, the subject remains in the same place and with the same "where"; otherwise through every accidental change the "where" of the subject would be varied, for example when immobile air is illuminated or ceases to be illuminated, or when an immobile man becomes warm, which is incredible. But if the "where" of the subject were the "where" of the form, it would necessarily be varied together with

the form, since it would be its mode. Hence, while the subject is moved by an extrinsic impulse, the forms also receive their own distinct motions, by which they acquire their proper ubieties. Nevertheless, they are then said to be moved accidentally, because the impulse, since it is impressed upon the subject alone, tends of itself only to the motion of the subject and causes the motion of the forms only consequently, since by reason of union they must accompany the subject. For the same reason, one who is carried in a ship is said to be moved accidentally. Nor does union determine the form to the place of the subject except radically or exigently, insofar as it requires the ubieties of both to penetrate intimately. Likewise, the individual parts of an integral whole have their own distinct ubieties; otherwise a finger could not be moved, nor a nail cut off, without changing the "where" of the whole man.

17. Doubt 6º: what are the causes of ubication? I answer: the material cause is the thing that is located, for ubication inheres in it. There is no physical formal cause, unless perhaps of connatural circumscriptive ubiety, which is said to be a secondary formal effect of quantity; but the metaphysical formal cause is the specific difference of ubication. This difference may be taken: 1º from the function of founding distance or lack of distance. Thus ubications, whether of the same or of several beings, which correspond to the same part or point of imaginary space, or, if preferred, are distant from the poles and center of the world through the same line, are judged to be of the same species and distinct only numerically; but those which do not so correspond differ specifically from one another. 2º From the order or essential binding to the thing located; and thus ubications participate in the specific or numerical distinction of the things themselves. 3º From the circumscriptive or definitive manner of locating, which will be discussed in the following chapter; or also from whether the ubication is or is not divisible, or is as it were composed of several ubications, which difference can be found in the ubications of the same thing, especially of a spiritual thing. As regards the efficient cause, each thing in the first instant of its existence seems to cause its proper ubication by natural resultancy. God alone, however, then determines that one rather than another be produced, both as regards individuation and as regards the species taken from distance. But the cause of an ubication acquired by motion is the same cause that produces the motion, and therefore is sometimes extrinsic and sometimes intrinsic.

18. Doubt 7º: whether two bodies having distinct quantities can penetrate through ubieties corresponding to the same real or imaginary space. Two or more spirits can naturally penetrate one another without

doubt, as can also a spirit and a body. Corporeal things which do not have distinct quantities can likewise be naturally penetrated, as is evident in corporeal forms, which are penetrated together with matter. Experience shows that the aforesaid bodies cannot naturally penetrate one another, since we see one always being thrust back by the other. Nor is there any obstacle from one or another minor observation, for example that a vessel full of water receives some coins without the water overflowing, or that one filled with ashes receives a considerable portion of water. For if there is penetration here, why does the vessel receive only some coins and not as many as it would receive when empty? The reason, therefore, why the water does not overflow when some coins are put in is that it rises somewhat in a rounded mass above the rim of the vessel, whose dryness prevents the overflow. Ashes, however, when compressed by the introduction of water, expel the air contained in their pores; and the water occupies the place of that air and of many little particles which fly away at the same time.

19. That penetration of bodies can occur by Divine power is held by all the Scholastics except Durandus, who treats the matter as problematic. The reason is, first, because no contradiction follows from it. Second, because otherwise the departure of the Lord's body, whether at His birth from the virginal womb of the Mother of God or at His Resurrection from the closed tomb, and His entrance into the upper room with the doors shut, cannot be explained; indeed neither can the mystery of the Eucharist, in which we believe all the parts of the Lord's body to be found in every particle of the host. It may be said: it belongs to the notion of quantity to have extension and part outside part. I distinguish: to have an aptitude for it and a natural exigency which is naturally incapable of frustration, I grant; to have it actually, I deny. Otherwise the Lord's body would lack quantity in the Eucharist. Actual extension, therefore, consists only radically in quantity; formally, however, it consists in ubieties corresponding to the extension of imaginary space, which can be impeded by Divine power while quantity is preserved. Hence you will gather how dangerously Descartes placed the idea or notion of body in actual extension.

On the Vacuum.

20. A vacuum is defined as "a place lacking a body, yet capable of being filled," or also as "an empty interval surrounded by a real bodily surface," such as would exist between the sides of a vessel if God removed every body contained there without substituting another. Hence it differs from imaginary space only insofar as that space is surrounded by no real surface.

It is asked 1º whether a vacuum is possible, at least by Divine power. Some cited by the Conimbricenses deny it; Descartes also denies it, *Princip.*, part. 2, n. 16, moved by the reason that the sides of a vessel, if they contained nothing, would necessarily be contiguous. For since nothing would lie between the two bodies, they must touch each other; nor can two things be distant from one another while the distance itself is nothing. But the affirmative opinion is held by all the others and is entirely true. For there is not even a shadow of contradiction in the omnipotent God's reducing every sublunary body to nothing while preserving the surface and figure of the celestial sphere. He is not bound, merely because He destroys one body, also to destroy another or to substitute a new one.

21. To Descartes' argument it must be denied that the sides of the vessel would be contiguous even though nothing intervened; for contiguity is constituted by such ubieties of two bodies that no real extension can be interposed between them. But then, for example, an extension of a palm could be interposed between the wholly immobile sides of the vessel. It must also be denied that the distance of the sides would be nothing. For distance properly does not consist in the actual intervening extension, which is commonly called extrinsic distance or the measure of distance relative to us, but in such intrinsic places of two things that, without any variation of themselves, they can admit some real extension between them. Descartes, moreover, was moved to deny the possibility of a vacuum not by this argument but rather by his theory of motion, although he had previously acknowledged even its natural possibility, as may be seen in Fr. Rapin.

22. It is asked 2º whether a vacuum exists or can exist naturally. A twofold vacuum is commonly distinguished. One is called "conserved" and is a sensible or notable vacuum, for example an interval of a palm that is wholly empty. The other is called "disseminated," namely one consisting of many insensible little empty spaces dispersed through larger bodies and enclosed among many of their particles or atoms. Some contemporary corpuscular physicists judge that a vacuum of the first kind can exist without a miracle, moved by certain experiments, especially those involving Torricelli's tube and Boyle's machine. After Democritus and Epicurus, many more of these same modern physicists in fact admit a disseminated vacuum. The Peripatetics unanimously deny both, thinking that nature has an innate fear of, or aversion to, every vacuum. The Cartesians subscribe to this with Descartes as their leader.

23. The Peripatetic opinion is commonly proved, 1º by reason: because the union or contiguity of all the parts of the sublunary world with one another is necessary in order that they may continuously receive the

influences of the celestial bodies upon which they depend. For any intervening emptiness would interrupt the passage of an influence or quality through lack of a receptive subject. Hence, just as the parts of a living body require a continuous union in order to be conserved and to receive life from the same principle, so the parts of the world, for almost the same reason, require uninterrupted contiguity. Moreover, the whole space from the fixed stars down to the earth is in fact interrupted by no emptiness. For the stars can be seen from any point on the surface of the terrestrial globe, and consequently light and a visual species reach us along every straight line from the heavens. This could not happen if there were some emptiness in between. Similarly, if the whole body of the earth were made transparent by God, a person placed at the center of the earth could see the stars; which likewise proves that there is no emptiness in the terrestrial globe. And if the matter in fact occurs in this way perpetually, this is a strong argument that it cannot happen otherwise without a miracle; for by this reasoning we infer that fire cannot naturally be deprived of heat. The same transmission of light and of the visual species proves that there is no vacuum either in the receiver of a pneumatic machine or in the upper part of a barometer, or Torricellian tube. Hence that space is filled either by extremely subtle, highly rarefied air, or by the most subtle ethereal substance entering through the pores of the glass.

24. 2° By experiments openly attesting the supreme effort of things to avoid a vacuum, even at the expense of a particular good which they otherwise naturally seek. Thus, when air is drawn through a tube, water rises upward against the inclination of its own gravity, lest the place abandoned by the air remain empty; the same occurs in a syringe or pump when the piston is drawn up. Conversely, water does not fall from an inverted narrow-necked bottle, nor from a watering vessel through the numerous openings beneath, while the upper opening is closed by a finger, because the air cannot enter to fill the place that the water would have to abandon. For the same reason a cupping glass draws up the flesh, because the inner air, when condensed after the flame is extinguished, leaves a place which would remain empty unless it were filled by the flesh drawn upward. From the same cause the sides of a compressed bellows cannot be pulled apart by any force if, every opening being closed, air cannot enter. To this is also commonly reduced the fact that, when water enclosed within freezes, the vessel bursts so that entrance may be opened to the air. I omit many other phenomena directed to the same point.

25. Modern philosophers nevertheless contend that these and other similar effects are to be referred, not to fear of a vacuum, but to the weight,

pressure, and elastic force of the air, by arguments certainly not to be despised, which are proposed and explained, among others, by the eloquent author of *Philosophiae Burgund.*, tom. 4, tr. 2, dissert. 3, cap. 8 et seqq. We do not have leisure to discuss this question now. Fr. Jean-Baptiste de Benedictis may be consulted, *Physic.*, l. 3, q. 3, c. 2, where he resolves the arguments on both sides and finally concludes that it is more probable that no vacuum in fact exists and that none can naturally exist. He also warns that from the fact that the gravity of the air is the efficient cause of the motions recently mentioned, it is ineptly inferred against the Peripatetics that such motions do not occur from fear of a vacuum. For the phrase "from fear" will be sufficiently verified if avoidance of a vacuum is the final cause of those motions, so that to this end the gravity of the air serves the intention of nature. In the same way, when someone carried on horseback rushes away from this place, the force and speed of the horse is the efficient cause of the motion, which nevertheless may at the same time occur from fear of an enemy.

26. It is asked 3º whether a body existing in a vacuum could be moved. It must be affirmed. For why could not an Angel hurl a dart through a vacuum? And if a region of air were made empty, why could not a stone be carried downward to the earth by its own gravity, since nothing would hinder the motion and its innate propensity toward the center would urge it from within? It may be said 1º: every motion depends upon celestial influence, which would not exist in a vacuum. This must be denied, at least of motion proceeding from an intrinsic principle, if the movable thing is conserved by God alone, as always or for the most part occurs. It may be said 2º: motion through a vacuum, since it would be retarded by no medium, would be instantaneous, which is repugnant to local motion. I answer: it would be successive, because local motion is retarded not only by a resisting medium, but also by the distance of the ubieties or places "from which" and "to which," and it must always correspond successively to the parts of imaginary space. Hence two bodies unequal in weight would not move through a vacuum with equal velocity, because the heavier would overcome the distance with greater force.

27. It may be said 3º: if a stone were moved in a vacuum, it would leave empty the space which it filled; therefore a vacuum would naturally occur. I answer: the stone would not so much make a new vacuum as exchange and compensate one vacuum for another, by filling an equal amount of another vacuum; which exchange would occur naturally on the supposition of the miracle. It may be said 4º: local motion must continuously acquire a new place, which would not occur in a vacuum. I distinguish: a new real extrinsic

place, I deny; a new intrinsic place, or a new ubiety, which is the proper terminus acquired of itself by local motion, I grant. Motion in a vacuum would indeed abandon and acquire a place of this kind.

CHAPTER II.

Whether Bilocation of the Same Body Is Possible.

1. That the same body cannot naturally be at the same time in two places is certain to all from experience. The sole question is whether this can be done by Divine power. A twofold kind of ubication or presence must be distinguished here. One is an ubication which constitutes the whole thing in the whole space, whether real or imaginary, and the whole thing in every point of the space. This is called "definitive presence," and is proper to spirits, which, since they lack parts, are whole wherever they are; for example, the rational soul, which is wholly present to the head, wholly to the hand, and so forth. Yet it is confined to certain definite limits of space, since it wholly exhausts the natural capacity of a spirit, for an Angel or soul cannot naturally be present at once to the whole world. Hence it is called "definitive," while God's presence is not so called for the opposite reason. To this kind is reduced "sacramental presence," by which in the Eucharist the whole body of the Lord is under the whole species of bread and the whole under every particle of the species; hence this presence also is commonly called "definitive." The other ubication is one which so places the whole thing in a place that the parts of the thing correspond to parts of the space, and one part is not in the place of another nor penetrated with another. This is called "circumscriptive presence," and naturally belongs to a body.

2. That the same body can by Divine power have several definitive presences at once, or one circumscriptive and other definitive presences, is certain from the mystery of the Eucharist. But that it can, even by Divine power, have two or more circumscriptive presences simultaneously is denied by the Thomists with St. Thomas, although some try to interpret the Angelic Doctor as speaking of God's ordinary power. All the Scotists with Scotus nevertheless affirm it, and, with the sole exception of Fr. Vázquez, all our Authors with Fr. Suárez, besides many other ancient and modern authors. The chief proof of this opinion, in my judgment, is this: as we are taught by Faith, the same body of the Lord, besides the circumscriptive presence which it has in Heaven, admits several definitive presences in the Sacrament of the altar; therefore it can also admit two or more circumscriptive presences simultaneously.

3. The consequence is proved: if a circumscriptive presence does not exclude another definitive presence, it does not so limit the body to one place that it prevents it from being simultaneously truly and properly present elsewhere; therefore it cannot resist another circumscriptive presence more than another definitive presence. The inference is clear, because circumscriptive presence is of itself more consonant and connatural to the exigency of a body than definitive presence, which, by reducing all its parts to the same point of space, resists their natural exigency. If, therefore, one circumscriptive presence permits another which is unnatural, why should it not permit another which is of itself natural? Thus, if a subject adequately receiving form A once permits that form to be received simultaneously in another subject, it cannot resist another subject naturally apt and disposed more than another naturally inept or indisposed. For example, if a soul receiving Grace permits that Grace to be received simultaneously in a stone, it will more readily permit the same Grace to be received simultaneously in another soul or in an Angel; and if the form of fire can be received in two subjects, it can more readily be received in two hot subjects than in one hot and another cold subject.

4. Confirmation: circumscriptive presence essentially excludes another of the same kind neither by reason of adequation nor by reason of similarity; therefore it excludes it on no ground. The antecedent is proved: first, not by reason of adequation, for on the same ground it ought also to exclude another presence of a different kind, since by the latter the body is truly placed beyond or outside its adequate place, and truly is whole there and whole elsewhere. Thus one total eduction excludes, by reason of adequation, the concurrence of another creative action no less than that of another eductive action with respect to the same terminus. Second, not by reason of similarity, for otherwise one definitive or sacramental presence would likewise exclude another similar one, nor could Christ's body be simultaneously in several tabernacles. Finally, in definitive presences most of the Thomists' arguments admit a clear counterexample.

5. Our opinion is also proved by two examples admitted by the Adversaries. First: two bodies can by Divine power penetrate one another, or exist circumscriptively at the same time in the same place; therefore one body can exist in two places. The consequence is clear, first, because in both cases there is the same reason of commensuration and adequation; second, because it appears no less difficult for a body of one palm to occupy the space of the universe than for the whole universe to be constituted in a space of only one palm; finally, because scarcely any difficulty can be found in bilocation which, proportion being preserved, does not also apply to

penetration. Second: the same human nature can by Divine power be terminated simultaneously by several subsistences, namely the three Divine subsistences; therefore the same body can be terminated simultaneously by several circumscriptive presences. The consequence is proved because the terminability of a nature is no less adequately terminated and as it were circumscribed by one subsistence than the locatability of a body is by one presence. To this also belongs the example of the bilocation of a rational soul or an Angel, which no one denies to be possible by Divine power, as Fr. Quirós testifies, disp. 6, s. 2, n. 9; nor does it seem possible to deny it, since it only multiplies definitive presences. If the whole locatability of an Angel, defined or bounded by one "where," can simultaneously admit another and another "where" of the same kind, why cannot the locatability of a body circumscribed by one "where" do the same?

6. Finally, our opinion is proved from sacred and ecclesiastical history. For Christ the Lord appeared in the air to Paul on his way to Damascus, although He did not cease to be in Heaven. St. Anthony of Padua was seen simultaneously in two places; histories also relate this of St. Ignatius, the first Father of our Society, of Xavier, the Apostle of the Indies, and of other saints. But to say that an Angel appeared in the second place under the appearance of the holy man seems an arbitrary solution and contrary to the common understanding of the faithful.

Objections Proposed and Solved.

7. It is objected 1º: circumscriptive presence essentially implies the negation of another, both from the concept of total and adequate presence and from the very name "circumscriptive," which indicates that the whole body is so enclosed within the limits of this place that nothing of it is outside. I answer: circumscriptive presence implies the negation of another naturally, but not essentially; otherwise the Lord's body circumscriptively located in Heaven would not admit another sacramental presence. As regards the concept of total and adequate presence, it belongs to that concept only to be commensurate with the whole natural exigency of the body, so that it naturally permits no concurrence of another. Nor does the name "circumscriptive" indicate anything other than that the whole body is within the limits of this place with the extension due to it. With this it is entirely compatible that the whole body should at the same time be outside this place, taking "outside" positively, insofar as it denotes presence in another distinct place; not, however, taking "outside" negatively, insofar as it signifies not being "inside." Thus, although the whole body of Christ is

within Heaven, the whole is at the same time outside Heaven, namely on the altar. Thus, although the whole nature is terminated by one subsistence, it can at the same time be terminated by others; and yet "to be terminated" signifies "to stop there," or "not to proceed farther." Thus also a place preoccupied by one body can simultaneously be occupied by another, although occupation naturally implies the negation of another.

8. It is objected 2º: many absurdities follow from bilocation. For 1º the same body could be discontinuous, divided, separated, and distant from itself, if, for example, it existed simultaneously at Rome and Salamanca. It could likewise be above and below itself, meet itself on a road, and touch its own forehead directly with its forehead. 2º A body of one palm's quantity could have a surface of two palms, or two surfaces of one palm each, if it were located in two spaces each of one palm. In that event the body would also be equal to a space twice as large, and consequently would be simultaneously equal and unequal. 3º The same body could be the place of itself, if it were replicated around a circumference in such a way as to leave a cavity in the middle, in which the body itself were located through a new ubication. Then the same thing would be locating and located, containing and contained. 4º The same man could run and not be moved; for if through multiple ubication he occupied the whole forum and then ran in the forum, he would not be moved, because he would not leave the place in which he was. 5º Bilocation could occur naturally; for if a stone were bilocated outside the center, it would from both places require descent and would naturally move toward the center. 6º Two places coextended with the same body would penetrate one another, just as two bodies coextended with the same place are penetrated. 7º If a body admits two presences, why not infinitely many? It could therefore be immense, or existing everywhere, which gives occasion to the error of the Ubiquitarians, who imagined that Christ as man exists everywhere.

9. I answer by denying the consequence. To proof 1º: the counterexample is manifest in the Eucharist, where one could equally object to the division, discontinuity, and distance of the Lord's body from itself as existing in Heaven, and likewise that it is above and below itself, and that it could meet itself on a road if Christ the Lord under His proper appearance met someone carrying the Sacrament. It may be said: Christ's body is not in the Eucharist, or in the tabernacle, as in a place. I grant this, provided "to be in a place," or "as in a place," is taken in the Aristotelian sense, namely so that Christ's body in the Eucharist is coextended with some extrinsic place or some surface of a containing body; for it is there in an unextended manner and after the manner of a spirit. But if "to be in a place" signifies to

correspond to such imaginary space, or to be truly and really present there where the accidents of bread are, Christ's body is without doubt in the place of those accidents. For without prejudice to the Catholic Faith it cannot be doubted that it is truly, properly, really, and substantially present in the hands, mouth, and stomach of the priest, and wherever the consecrated host is preserved, and no less truly and really than in Heaven. Therefore it has in Heaven and on the altar discontinuous, divided, and distant presences, one of which is below and the other above. Is the body therefore to be called discontinuous from itself, divided from itself, and so forth?

10. Accordingly, denominations of this kind, since they require a real distinction between the extremes, do not belong to a bilocated body taken specifically, but only reduplicatively, insofar as it has two presences, so that it is the presences alone that are discontinuous, divided, contiguous, or directly touching one another, and so forth. Nevertheless, many hold that the denomination "distant from itself," or "existing above and below itself," belongs even to the body itself, although not by reason of itself but by reason of its twofold presence. This seems to be a question of terminology. Certainly the proper formal effect of ubication is to constitute the body as existing here rather than there, or corresponding to this small space of imaginary space rather than another. Each ubication would indeed produce this effect in our case, because by virtue of its Salamanca ubication the body would exist at Salamanca rather than Rome, and conversely by virtue of the Roman ubication. But division, separation, distance, contiguity, and other similar respects, although they exist between the ubications, are not transferred to their subjects unless the subjects are supposed to be really distinct. In the same way, if by Divine power the same subject simultaneously received whiteness and blackness, it would indeed be rendered white and black at once; nevertheless, it would not be rendered unlike itself or different from itself, although there would be unlikeness and diversity between the whiteness and blackness. Hence it must likewise be denied that the space or quantity intervening between two ubications of the same body intervenes between the body itself or between the extremities of the body taken specifically.

11. To 2°: the counterexample is evident in penetration. For if two bodies each of one palm were penetrated, each would simultaneously be adequate to one space of a palm, and consequently there would be one surface of a palm for both together; and the two taken together would be equal to such a space and otherwise unequal to it, since they could be commensurated with a larger space, namely one of two palms. Similarly, if two equal vessels were penetrated, the water sufficient to fill one would fill both simultaneously,

and yet it would be commensurated with a surface twice as large. Surface, therefore, can be taken in two ways. 1º Entitatively, for a quantity naturally requiring so much extension in length and breadth. 2º Extensively, for the formal and actual extension itself, which consists in ubication. In the first sense a bilocated body of one palm would have only one surface of a palm, nor would it be equal to a space twice as large. But in the second sense it would indeed have two surfaces of a palm, and its quantity would be extensively equal to two spaces to which it would be entitatively unequal. Yet this is nothing other than that, beyond the extension naturally required, a body can by Divine power have another extension, which the Adversaries do not reject. Aristotle's statement that place and the thing located must be mutually adequate or commensurate must be understood of this extensive equality.

12. To 3º: such a replication of the body around the circumference and in the middle can indeed be given. But I ask whether it belongs to the notion of place as defined by Aristotle that its surface be entitatively distinct from the surface of the contained body, or whether a surface distinct only extensively suffices. If the first is chosen, the body would not be the place of itself, nor in that hypothesis, insofar as located in the middle, would it be in an extrinsic place. If the second is chosen, I grant the consequence; for it is not repugnant that the same body, according to diverse extensions, should be locating and located, containing and contained. Nor is there certainly greater difficulty in this than in the fact that Christ on the night of the Supper held His own body in His hands and even received the whole of it into His mouth and stomach.

13. To 4º: that man could not run naturally in the forum, because he cannot acquire a new presence where he already has another. Nevertheless, he could run by Divine power by abandoning a presence in space A and acquiring a new one in space B, although penetrated with another already possessed there; for it is not repugnant that the same body be located in the same space through several numerically distinct simultaneous presences. It could also happen that the man, without abandoning the presences already possessed, successively acquired new ones throughout the whole space. But then, properly speaking, he would neither be moved locally nor run, because local motion, and consequently running, properly signifies passage from place to place, which passage connotes or implies abandonment of the place previously possessed as the terminus "from which." Nevertheless, he would be moved according to the third meaning of motion discussed in disp. 1, c. 1.

14. To 5º, which is the foundation of Fr. Vázquez, I deny the consequence. Its proof equally attacks penetration. For if two stones of

equal weight were penetrated in the air, both would require descent and would naturally move together along the same line; hence penetration would occur naturally. In the case of the argument, the stone, as existing in both places, would require descent, but only one descent, namely from one of the two places, for one descent suffices to acquire the center. Yet because descent could occur equally quickly and easily from either place, as I suppose, the exigency of the stone does not determine from which place it ought to move, but requires determination by God. Hence, if God complies with this exigency and determines the motion from place A, the stone will descend naturally from there while simultaneously requiring the loss of its presence in place B. But if God does not will to destroy this latter presence, the stone will descend from A and at the same time remain in B, violent indeed because of the duality of presences, but not because of the lack of descent from place B. Nor would bilocation then occur naturally; for this it would be necessary that both presences be naturally produced or required, whereas then not both, but only one, would be naturally required and produced through the stone's downward motion. Thus Christ's body can be moved naturally in Heaven while its Eucharistic presence simultaneously remains, without bilocation thereby occurring naturally.

15. It may be said: a stone cannot naturally require or acquire a new presence in the composite sense of another. I distinguish: in the composite sense of another presence naturally conserved, I grant; of another miraculously conserved, I subdistinguish: if that other presence is supposed on the side of first act with respect to the new presence, I grant; if it is not so supposed but is rather prescinded from, I deny. And I press the counterexample just given, from the natural motion of the Lord's body in Heaven. Accordingly, when a stone bilocated outside the center in places A and B descended from place A, the presence in B would not be naturally conserved, but rather ought to perish; nor would it be presupposed on the side of first act with respect to the new presence to be acquired by motion, but such first act would prescind both from it and from its absence, because it would be a removable impediment, this kind of impediment having been explained in tr. 2, d. 3, c. 5, n. 6, since it would have no natural right to exist prevailing over the stone's exigency for a new presence. Hence the absence or exclusion of the presence in B should be understood as posterior to the new presence, as a secondary effect. Yet if it were miraculously conserved, it would not therefore impede the naturalness of the motion and the new presence, although it would violate the exigency of the latter. Nor would the simultaneity of both presences be said to occur naturally, since only one would be naturally produced, and this one would require not the

concurrence of the other but rather its exclusion. An example will make the matter clear. When fire heats water, the induced heat requires the expulsion of cold as a secondary effect. Suppose God does not will to comply with the exigency of the heat, but nevertheless wills to conserve the cold. Then neither will the production of the heat cease to be natural, nor will its conjunction with the cold cease to be miraculous, although the miracle consists solely in the conservation of the cold against the right of the naturally produced heat.

16. To 6º, I likewise deny the consequence, because penetration consists in the presences of two things corresponding to the same part of imaginary space. Such presences would belong to two bodies coextended with the same place, but would not belong to two places coextended with the same body. Thus, if two bodies existed sacramentally in the same host, they would penetrate; and yet two hosts, or the species of each, sacramentally containing the same body, do not penetrate. To 7º, the counterexample is most manifest in the same mystery of the Eucharist. For Christ's body could admit infinitely many sacramental presences, which imitate the immensity of God more than circumscriptive presences do, since they place the whole thing in the whole space and the whole in every part of the space. Therefore the body could be rendered immense and existing everywhere, and an occasion would be given to the error of the Ubiquitarians, especially since this error is founded by the Lutherans upon the hypostatic union, as though the latter necessarily caused the humanity to exist wherever the Word to which it is united exists. For from this principle, if it were true, Christ's body would have to be whole in every point of real and imaginary space, since the whole Word is in every point. Hence the multiplication or infinity of sacramental presence would lend more support to that error than the multiplication of circumscriptive presence.

17. I therefore grant that a human body can by Divine power be placed everywhere, that is, in all real space, which is no more absurd than that the whole universe could be so penetrated as to have an extension of only one palm. I likewise grant that the same body can by Divine power have infinitely many presences, if an actual infinite is not repugnant on some other ground. Yet it would then exist everywhere accidentally and without being due to it, and therefore would not properly be an immense body. For immensity, insofar as it is an attribute of God, is an indivisible presence essentially due to God and identified with Him, and consequently indefectible and necessarily determining God to be most present to all places and things whenever they exist. But that infinite presence of a body, or multitude of presences, would be divisible and composed of innumerable imperfect parts,

really distinct from the body, undue, contingent, and dependent upon God's free will. The error of the Ubiquitarians is ineptly objected, since it consists in the affirmation of a fact or of a due consequence supposedly founded in the hypostatic union, which we wholly deny, granting only possibility according to God's absolute power. One who asserted that an incarnation of the Holy Spirit is in fact posited or due would err absurdly; nevertheless, one who holds it possible does not err. With much greater appearance the Adversaries object, and by force of argument we deduce, that their opinion gives an occasion to the Sacramentarian heretics.

18. It is objected 3º, and principally: extension in relation to place is the formal effect of quantity; therefore it cannot be multiplied unless quantity itself is multiplied. Confirmation: one quantity cannot occupy two places by natural potency, as is supposed; nor, on the other hand, by obediential potency, because quantity occupies place in the genus of formal cause, in which genus there is no obediential potency. The objection is met by penetration. For according to the Thomists, it is as repugnant for one matter to be simultaneously informed by two forms as for one form simultaneously to inform two matters; therefore the extension of two bodies in the same place will be as repugnant as the extension of the same body in two places. Accordingly, extension in relation to place proceeds formally from ubication as from a form, or formally consists in ubication itself. Nor is it the primary formal effect of quantity; an effect of this kind is to render a body naturally impenetrable together with another quantified body, or to render it extended in relation to itself, that is, having in itself parts to which local extension is naturally due. For the quantity of the Lord's body has this effect in the Eucharist, where it lacks local extension. This extension, therefore, can be called a secondary formal effect of quantity only insofar as it is due, as was said in tract. 2, d. 2, c. 2, n. 16. An effect of this kind, since it is adequately distinct from its form, can be multiplied, at least materially, although the form is not multiplied.

19. To the confirmation: one bilocated quantity would occupy one of the two places by natural potency, but the other, in the composite sense of the first, by obediential potency. That there is no obediential potency in the genus of formal cause is false, as is evident in a form which by Divine power would inform several matters. And whatever may be said of this, quantity in our case would not occupy two places simultaneously in the genus of formal cause, as I shall say below. I ask whether two penetrated bodies would occupy the same place by natural potency or by obediential potency. If the first is said, they would therefore penetrate naturally. If the second, then,

since they would occupy the place in the genus of formal cause, as is contended, there would now be obediential potency in this genus.

20. First reply: a secondary formal effect cannot be multiplied unless the primary effect which it presupposes and from which it results is multiplied. I distinguish: it cannot be multiplied materially or taken specifically, I deny; formally under the notion of a secondary effect, I grant. A secondary formal effect, in its being as such, connotes the exigency of the form or primary effect to which it is naturally due. Hence it cannot be multiplied in its being as such unless the prior exigency, which consists in the form or its primary effect, is multiplied. Yet it can be multiplied specifically or materially; that is, the entity or privation which of itself asks to exist after the manner of a secondary effect, or according to the exigency of the form, can by Divine power be multiplied even though it is not required by the form and is not here and now a secondary formal effect. And thus it would happen in the case at issue. For only one extension would formally be a secondary effect of quantity; the other would be produced by God beyond, indeed against, the natural exigency of quantity. Thus the expulsion of cold from a subject can be greater than what is due to one introduced degree of heat; nor then will the expulsion of cold, insofar as it is undue, be called a secondary formal effect of the heat.

21. Second reply: because intellect is rooted in the soul and will in the intellect, two intellects cannot correspond to the same soul, nor two wills to the same intellect. Therefore, since local extension is rooted in quantity, two extensions cannot correspond to the same quantity. I distinguish the antecedent: they cannot correspond as due or by natural exigency, I grant; beyond what is due or required, with God miraculously decreeing it, I deny the antecedent, supposing with the Adversaries the distinction of the powers from the soul; and with the same distinction I deny the consequence. Thus fire can by Divine power be given two heats each of intensity eight, although only one is rooted in and required by the form of fire. Yet that undue heat would not then have the notion of a property with respect to fire except materially or aptitudinally, as we have just said of the secondary effect.

22. Third reply, from those things which Palanco objects at length and confusedly: ubication by its essential concept is the formal effect of quantity, at least after the manner of causality or exercise; therefore it cannot exist without proceeding from quantity in the genus of formal cause. The consequence is clear, for just as action, because it is the causality of an efficient cause, must proceed from that cause in the same genus, so if ubication is the causality or exercise of quantity in the genus of formal cause, it must proceed from quantity in that same genus. The antecedent is

proved: it is repugnant that quantity should not occupy and fill a place as formal cause; but ubication is the filling, or exercise of filling, of a place; therefore ubication is the causality and exercise of quantity as formal cause. The major is proved 1º because quantity is related to place as form to matter, and therefore through it a place is rendered formally full, just as matter is rendered complete by form. 2º Because to occupy and fill a place is not merely to behave passively by receiving ubication; for this is rather to be filled than to fill, and consequently rather to be the place than the thing located, since place is distinguished from the thing located as what receives fullness from what gives it.

23. I answer by denying the antecedent, and in its proof I deny the major. Its first proof, namely that quantity is related to place as form to matter, if understood properly, is wholly false. First, of intrinsic place; for this is ubication itself, and ubication is not informed by quantity but rather informs it, and is received in quantity as in a subject, as is known. Second, of extrinsic place; for since this is a complete being, not united to but merely contiguous with the quantity located, it cannot be the matter or subject of that quantity, unless one absurdly wishes the surface of the air or clothing surrounding me to be the proper matter or subject of my quantity. Add that the proper subject of quantity is the bodily substance in which it inheres; hence, if quantity also regards place as matter, it will simultaneously have two subjects. There is also the counterexample of penetration. For two quantities could not simultaneously fill the same place, just as, according to the Thomists, two forms cannot simultaneously complete the same matter; nor could two penetrated vessels be filled at the same time by the same water, just as, according to the same authors, two matters cannot simultaneously be completed by the same form. Local occupation or filling, therefore, is not information, nor is it produced through the union of the located thing with extrinsic place as act with potency; rather it is the exclusion of a vacuum from the concave surface of the surrounding body, and is effected through mere juxtaposition or contiguity.

24. To the second proof: to fill a place is not merely to receive ubication, unless an extrinsic place is supposed to exist. Hence the convex surface of the outermost Heaven fills no place. But if a place exists, that is, the concave surface of a surrounding body, quantity A will fill and occupy it by the very fact that it merely passively receives an ubication contiguous to such a place. But, it is said, this is rather to be filled than to fill. I grant it if the discussion concerns the filling of information, for quantity does not inform ubication, but conversely, as no one doubts. But speaking of purely local filling, if quantity is compared with its own ubication, I deny the supposition that one

is filled by the other. For local filling, fullness, or occupation exists only in relation to extrinsic place, from which a vacuum is excluded. But exclusion of a vacuum can indeed be produced through the ubication of the located quantity, received merely passively and proceeding from quantity neither actively nor formally. Hence, if ubication is multiplied by Divine power, quantity will give fullness to several places simultaneously.

25. If it is asked in what genus of cause this fullness is given, I answer: in none, because neither is the thing located the cause of the place nor conversely. Or, if preferred, this fullness, when ubication is not naturally required, is given by quantity in the genus of passive cause, because such fullness consists in the exclusion of a vacuum, and this exclusion is formally the very ubication of the located quantity, supposing the existence of extrinsic place; but ubication is passively caused by quantity. One may insist: the denomination "full" or "filled" comes to the place from the located quantity as from a form. I distinguish: as from an extrinsic and improper form, let it pass, though it proceeds rather from the quantity's ubication; as from an intrinsic or proper form, I deny. And I press the point thus: the denomination "contained," "included," or "surrounded" comes to the located body from the extrinsic place; therefore such a place will be the form of the located body, and a vessel will be the form of the water it contains. Certainly, if account is taken of any denomination whatever, especially an extrinsic one, there is no thing which cannot be called the form of another; for even form is denominated through matter as "completed" and "subjected."

26. Yet you will note that a vacuum is formally excluded by the ubication of the located body, not in the genus of formal cause, as though ubication were compared with a vacuum or a part of imaginary space as form to subject, but in the sense in which one contradictory is said to be formally excluded by another, for example the absence of a man by the existence of the man. For a vacuum is the absence of corporeal ubication within a real concave surface. Hence it is this surface that is filled; but a vacuum, as regards its negative element, is not properly filled but excluded. From what has been said you will gather that quantity can occupy some place without exercising any function of formal cause. For it in no way causes extrinsic place. As regards intrinsic place, that is, the ubication of itself or of the body in which it inheres, quantity is said to cause it in the genus of formal cause only insofar as it naturally requires it as something resulting from its primary formal effect. Hence, if an ubication exists impressed from without beyond every exigency of quantity, it will in no way be a formal effect of quantity. But there is no reason why quantity, after it already has one

naturally required ubication, cannot receive in addition another or others simultaneously impressed by Divine power in other places.

Other Arguments Removed.

27. It is also commonly objected against our opinion that, if bilocation were given, the same man could be alive in one place and dead in another; assenting to the same object in one place and dissenting from it in another; holy in one place and a sinner in another, and so forth, which seem wholly absurd. But this objection attacks circumscriptive bilocation no more than definitive or sacramental bilocation, or the coexistence of one circumscriptive presence with another or other sacramental presences, such as the body of Christ the Lord has. For if a wayfarer, circumscriptively present here, were at the same time sacramentally present at Rome, he could die here, or lose Grace by sinning, or assent to an object from which he had dissented. I therefore leave it to the opponent whether he could then remain alive at Rome, or holy, or dissenting from the object. Whatever is answered will apply equally to the opponent. Hence difficulties of this kind can easily be cut off if one answers the arguer by a counterexample, namely thus: if the same or something similar can occur in sacramental bilocation, let it pass or omit it; if it cannot, I deny it.

28. Nevertheless, from those things which theologians treat at length in the tract on the Eucharist, especially the Eminent Doctor, tom. 3 in 3, p. d. 48, s. 5 and 6, and Cardinal de Lugo, disp. 5, *De Euchar.*, s. 2 and 3, some points may briefly be noted here. Note 1º: when a body is bilocated, all its forms and accidents which are not essentially affixed to a place can be bilocated or not bilocated without contradiction, according as it pleases God. For first, there is no greater repugnance in the bilocation of a form than of its subject; and second, since distinct presences correspond to the forms and the subject, there is no reason why one cannot be replicated without the other. Hence a body bilocated here and at Rome can be white, hot, and animated here, and not so at Rome, if, for example, the soul is not bilocated, and so forth. For although a body cannot absolutely and without qualification be at once animated and not animated, for example, because "not animated" absolutely signifies absence of the soul in the subject taken specifically, it can nevertheless be animated absolutely while at the same time being not animated with the qualification "at Rome," which qualification causes only the Roman presence of the soul to be denied. It is known to students of the Summulae that a negative consequence from a restricted term to an unrestricted one is invalid, although an affirmative one

is valid. Hence one would infer wrongly: "Peter is not white at Rome; therefore he is not white." Similarly, that body could then be said to be living and not living with the qualification "at Rome." But it would not rightly be called dead even with such a qualification, because by the name "dead" there seems to be excluded not only the Roman presence of the union and soul, but also the existence of the union taken entitatively. Yet if by that name one wishes to understand a body existing at Rome where neither the soul nor the union is present, one may speak as one pleases.

29. Note 2º: the common opinion holds that accidents essentially affixed to a determinate place, such as ubication and its production, position, and local motion, cannot be bilocated with the body even by Divine power. Some nevertheless oppose this, whom Fr. Peynado cites and follows, asserting that Peter's ubication, for example in place A, can by Divine power be located simultaneously elsewhere through another superadded and as it were reflexive mode of ubication. But this opinion is extensively rejected by Cardinal de Lugo, cited sect. 3, and can now be rejected more briefly for this reason. It is repugnant that anything should be essentially distant from its own presence; for nothing is more without distance from a thing than the thing's presence. But if the Salamanca ubication were placed at Rome through another presence, it would be essentially distant from this other presence of its own; therefore, and so forth. The minor is proved: the Salamanca ubication is through itself essentially distant from the Roman place, since in its quiddative concept it is the very formal reason of distance, according to the Adversaries; therefore it is essentially distant from every Roman presence, since the Roman place, intrinsically taken, consists in such a presence. But that other presence through which it would be located at Rome would without doubt be a Roman presence; therefore, and so forth.

30. The point is pressed: although two contrary forms can be joined in the same subject, it is nevertheless repugnant that one form receive from another a formal effect contrary to itself. Thus the same subject can by Divine power be made simultaneously white and black; yet it is contradictory that whiteness become black or blackness white. The same is evident in Grace and sin, knowledge and error, soul and the form of a corpse, and so forth. Likewise, therefore, although two presences can belong simultaneously to the same body, it is wholly contradictory that one should be denominated through the other opposite presence and receive its formal effect. But the Roman and Salamanca presences are opposed to each other no less than whiteness and blackness, as no one doubts; nor is it less contradictory in terms that the formal reason for being distant from place A

should become present to and without distance from that same place than that the formal reason for making white should become black.

31. Note 3º: it is more consonant with the exigencies of things that, when the subject is bilocated, all forms, modes, and accidents not affixed to a place should simultaneously be bilocated, because by reason of union they require to accompany the subject. Hence theologians teach that all the accidents of the Lord's body exist in the Eucharist; and the rational soul is placed there not by force of the words, but through concomitance, namely by virtue of its union with the body, or, as the Council of Trent says, sess. 13, c. 3, "by virtue of that natural connection and concomitance by which the parts of Christ the Lord … are joined to one another." Therefore the bilocation of the forms is absolutely miraculous; but on the supposition of the miracle of the bilocation of the subject, it is more connatural or more congruent with the natures of things, as is plainly gathered from the words of Trent.

32. It may be said: although the head is united to the soul, it does not require to be in the feet, where the soul is. I grant it. But the difference is that the head is not the adequate subject of the soul, and therefore does not require to be in every part of the adequate place in which the soul is; yet it requires to be within the adequate place of the soul. Consequently, if the soul were in two adequate places, the head ought to be in both, not so much through a new miracle as through a connatural consequence of the prior one. Similarly, the hypostatic union does not require Christ's humanity to exist wherever the Word is. For union requires only that one extreme be within the adequate place of the other, and that neither be outside its own adequate place without carrying the other with it. But the quasi-adequate place of the Divine Word is all real and imaginary space, within which, that is, in some part of such space, the humanity must exist by virtue of the union, even granted that it could otherwise be absolved from every place. Yet it need not exist throughout that whole space, especially since the humanity is not an extreme adequately commensurated with the Word, just as the head does not exist throughout the whole space of the rational soul.

33. From note 3º you will infer that whatever happens to a bilocated body in one place more connaturally affects it also in the other, or is likewise made present in the other. Hence, if a body located here and at Rome is heated, struck, dies, and so forth here, it ought to undergo the same affections or changes at Rome. Nor does it follow from this that the cause heating it here acts at a distance. First, because to act at a distance is to act upon a subject absolutely not approximated, which would not then occur. Second, because the cause heating here, although it would produce the Roman heat taken entitatively, would not produce it at Rome, or insofar as it

is present at Rome. For it would neither produce nor require its Roman ubication, which would be produced by God alone and required by the union of the heat alone, on the supposition of the bilocated body.

34. Note 4°: a bilocated man could neither act nor undergo action more in two places than in one. For both active and passive potency is identified with the entity of the subject, which always remains the same and is not increased by bilocation. Hence a bilocated man could not support two weights each of four if he can support only one of four in a single place; nor could he elicit two visions or cognitions each equal to his whole powers, but at most two remiss acts equivalent to one intense act producible in a single place. It may be said: if fire were applied to Peter here and snow at Rome, Peter would receive heat here and cold at Rome. I answer: he would indeed receive them, but precisely so much of each as he would receive from the same agents simultaneously applied in the same place. For those two agents, although distant from each other, would nevertheless resist and impede one another with respect to such a patient just as if they were contiguous or mutually proximate; for the defect of proximity between them would be supplied by the identity and application of the patient upon which they acted.

35. From the same rule you will gather that in a bilocated man there cannot simultaneously be assent and dissent, or love and hatred, of the same object, nor Grace and sin, nor Glory and punishment, if all these are truly repugnant to him in the same place. But if some or all of them can by Divine power coexist in a non-bilocated man, which does not concern our present purpose, they can likewise coexist in one bilocated. And here the counterexample of definitive bilocation in an Angel, or sacramental bilocation in a body, has the greatest force; for sacramental presence does not impede the exercise of spiritual actions.

CHAPTER III.
What Is Time?

1. Time essentially implies continuous succession, or an order of prior and posterior in existing, interrupted by no delay. For it is conceived by all not as something permanent, but as something flowing without ceasing, whose parts are always in the passage of existence, and one is as it were driven out by another immediately following it, so that none has either delay or rest. Hence they are compared to the waves of a rapid river, some of which are incessantly driven onward by others. Ovid elegantly treats this comparison, *Metam.*, l. 15: “Times themselves also glide in continual motion,

no otherwise than a river, etc." Time, taken formally, also implies finitude, for it is the measure of the duration of corruptible things having a beginning and an end. Hence temporal is opposed to eternal, and a temporal thing means the same as a thing of finite duration. I said "taken formally," that is, under the notion of a measure proximately apt for measuring; for time materially accepted as successive motion is not repugnant to being infinite or interminable toward the future.

2. The definition of time handed down by Aristotle, here l. 4, t. 101, and commonly approved, is this: "the number of motion according to before and after." "Number" is taken for an actually numbered multitude. This multitude, however, must be "of motion according to before and after," that is, of parts of successive motion, not any parts whatever, but parts having among themselves an order of prior and posterior, namely some immediately succeeding others in a continuous flow. For since time requires succession and the flow of existence, it could not more fittingly be placed than in a multitude of parts of this kind. Yet this multitude of itself does not imply a determinate finitude proximately apt for measuring, which time also requires, except insofar as it is reduced to some determinate number. Hence the names of the various measures of time are names of numbers. For an hour is a number of 60 minutes, a day a number of 24 hours, a month a number of 30 days, a year a number of 12 months, and so forth. Hence time is said directly to signify the multitude of the parts of motion, and obliquely an act of the mind numbering them. Aristotle therefore taught that, if mind were repugnant, time itself would also be repugnant, namely formally under the notion of a proximate measure. Moreover, time is called a quasi-quantitative measure of the duration of things, because we know how long a thing has endured from the fact that, while the thing remained, some determinate time passed, for example a day, month, or year, either once or repeated several times; just as from a cubit applied once or several times we know the extent of a piece of cloth.

3. Time is divided into real and imaginary. Real time is the aforesaid multitude of motions, or parts of motion, actually existing successively. Imaginary time is the same multitude conceived as possible; or it is a being of reason conceived from the foundation of that possibility, by which we imagine that time would exist even if all motion ceased and that it existed before the beginning of the world. Real time is subdivided into particular and universal. The continuous motion of any sublunary body, such as a clock or a potter's wheel, may be called particular time. Universal time, which alone is absolutely designated by the name of time, is the local motion of the heavenly bodies, especially the Sun, distributed into determinate parts or

numbers of parts. For this motion above all others is most regular and uniform; it is also known everywhere and employed as the measure of the durations of other things. For there is no nation which does not use for this purpose at least hours, days, and years, which names signify determinate parts of solar motion. A year is the complete circuit of the Sun through the ecliptic; a day, however, is the complete circuit of the same Sun from rising to setting and then to rising through the other hemisphere. This revolution, divided into 24 parts, gives us as many hours.

4. But it is objected 1º: solar motion itself is measured by time; therefore it is distinguished from time. 2º If the motion of the Sun ceased, time would not cease; hence St. Augustine said, *Confess.* XI, c. 23, that when Joshua fought against the Gibeonites, "the Sun stood still and time went on." Augustine himself also, in the following c. 24, does not approve the statement that time is the motion of a body. 3º Several Suns can simultaneously exist and be moved, and yet several times cannot simultaneously exist. 4º Motion can be slow or swift, but time flows evenly. Indeed, the slowness or swiftness of motion is known from the shorter or longer time in which the movable thing traverses a space. 5º The numerically same motion which has passed can be reproduced again and again, at least by Divine power; yet past time cannot return, but is wholly irrevocable. I answer to 1º: the smallest part of solar motion that can humanly be designated is not measured by time, but because of its minuteness is without a measure. Larger parts, however, are measured through the repetition of some smaller part, with only an inadequate distinction between measure and thing measured. Thus we measure the duration of an hour by minutes, the duration of a day by hours, the duration of a month by days, a year by months, and so forth, in the sense in which unity is called the measure of number and a smaller number the measure of a larger, as when six is measured by two.

5. To 2º: St. Augustine speaks either of imaginary time or of particular time, which consisted in the motion of other bodies. Yet real universal time certainly ceased when the Sun was immobile. In the other passage Augustine does not approve the statement because time and motion are rationally distinguished and are not synonyms. To 3º: several times which have, and insofar as they have, among themselves an order of prior and posterior cannot exist simultaneously; but several times which do not have such an order among themselves can indeed exist, such as would be the motions of several Suns moving simultaneously. Indeed, even then there would not formally or morally be several times, or several measures, because we would

measure the duration of other things from two Suns just as we measure it from one.

6. To 4º: time materially or specifically taken can be slower or swifter, but not insofar as it is reduced, according to the human manner, to determinate numbers of parts according to before and after. Suppose that the smallest part of motion from which human counting begins is what is called a "second." Certainly, whether that part includes more little portions of space acquired by the movable thing, as occurs in swift motion, or fewer, as occurs in slow motion, it will always be the same relative to us, that is, capable of being assumed for counting with an equal delay of thought. Hence a minute composed of so many seconds will always be equal, an hour composed of so many minutes equal, and so forth. Hence also, if the Sun moved twice as swiftly as it now does, seconds, minutes, hours, and so forth would not thereby become swifter; it would follow only that in the complete daily revolution of the Sun merely 12 hours would be counted, rather than 24 as now.

7. To 5º: past time can be considered in two ways. 1º Absolutely, according to its successive entity distributed into so many minutes or hours; and in this sense the numerically same time can be reproduced and return, just as motion can, and by Divine power yesterday and today could be the numerically same day. 2º Relatively, according to the distance it has from the beginning and end of the world, namely insofar as day A so exists or existed that precisely so many real or imaginary days, months, and years have passed, or are to pass, between it and the initial or final moment of the world. In this sense the same past time cannot return, because, although the very same motion of yesterday is now reproduced, it cannot now have the same relation of distance, since it will now be less distant from the end of the world and more distant from its beginning. For this same reason the loss of time is truly said to be irreparable; for if you lost yesterday, you can no longer recover it in such a way that as many days remain to you now as remained yesterday until the end of your life appointed by God's decree. In the same sense also the maxim "there is no potency with respect to the past" is true, although it is also rightly explained insofar as no potency can bring it about that what has been was not, on the supposition that it has been. If these solutions are less pleasing, remember that the quiddity of time is obscure, concerning which even the great Augustine said, *Confess.* XI, c. 14: "If no one asks me, I know; if I wish to explain it to one who asks, I do not know."

8. But since time is the measure of duration, what is duration? If the proper meaning of the word is considered, it is "the permanence of a thing

in being"; for each thing is said to endure for as long as it remains in being. Hence a thing in the first instant of existence, just as it does not yet remain, so does not yet properly endure. Yet usage has now prevailed so that the name duration is extended even to the first instant. Accordingly, duration in general can be defined as "the ultimate determination of a thing by which it coexists with such imaginary time," or, what amounts to the same thing, "by which it coexists with such real time, if time itself exists"; where by the name "time" is also signified an "instant," which is an indivisible point of time. This definition is to be explained after the manner of that which we gave for ubication in c. 1. From it you will gather that a thing can endure even if no real time and no motion exists, just as a thing can be located or ubicated even if no extrinsic place exists.

9. Duration as such is divided into eternity, aeviternity, and the duration of corruptible things. Eternity is defined from Boethius as "the whole, simultaneous, and perfect possession of interminable life," namely of a life which essentially excludes a beginning and an end and is also essentially immutable. This belongs to God alone. Aeviternity is duration admitting a beginning but naturally knowing no end, and consequently naturally eternal, as they say, toward the future; such is the duration belonging to an Angel and a rational soul. The duration of corruptible things, which is also commonly called "intrinsic time" and designated by the common name "duration," is that which naturally admits both beginning and end, such as a horse, tree, fire, and so forth possess.

CHAPTER IV.
Whether Created Duration Is Distinguished from the Existence of the Thing and from Flowing Time.

1. In this difficult controversy there are two celebrated opinions. The first places duration in a mode distinct from the existence of the thing and received in the thing itself, in no other way than the common opinion holds concerning ubication; yet in such a way that the mode of duration is essentially successive and arrives new at each moment, the prior one perishing. Thus the Conimbricenses, Cardinal de Lugo, Arriaga, Complon, Lynce, Izquierdo, Peynado, Ulloa, and others, and also the Carmelite Complutenses with other Thomists. The second identifies duration absolutely stated with the existence of the thing; but duration taken as in such a time or instant is placed principally and directly in the existence of the thing itself, and obliquely, what Fr. Suárez calls the "connotate," to be understood of a connotate intrinsic to the whole denomination "enduring,"

not one extrinsic to it, in such real or imaginary time or instant. This is the same way in which, in Logic, we identified formal truth with act and object, and the relation of similarity with foundation and terminus. Thus Fathers Suárez, Vázquez, Molina, Valencia, Amicus, Hurtado, Oviedo, Alphonsus, Quirós, and others of ours. The Scotists and many Thomists agree.

2. This second opinion, as regards duration absolutely stated, can be proved thus. A thing formally endures through that through which it formally remains or persists in being. But it persists in being through that through which it does not cease to exist, or through that through which it formally excludes cessation of existence. Yet this cessation, since it is an absence or formal defect of existence, is formally excluded by existence itself. Therefore, and so forth. Confirmation: the ultimate determination of a thing such that, if time existed while the thing existed, the thing would coexist with it, is duration; just as the ultimate determination of a thing such that, if a place existed while the thing existed, the thing would be contained by it, is ubication. But the actual existence of the thing is a determination of this kind, for with it posited nothing is lacking for coexistence with time except that time exist. Therefore, and so forth.

3. Hence the same opinion is also proved as regards duration insofar as it is in such a time or instant. For a thing to endure in instant A is for the thing to coexist with that instant, as no one denies. But this coexistence can be fully understood while a superadded mode of duration is excluded or mentally prescinded from. For if you understand the bare existences of Peter and of the instant to be actually given, you fully understand one to exist just as the other exists, or one to exist while the other exists. But this, and nothing else, is what it means for one to coexist with the other. Certainly the coexistence of two things is their actual similarity in existing, which similarity consists specifically in the actual existentials of each, anything else being prescinded from, at least according to our Authors, who reject a mode of relation.

4. It may be said: actual similarity requires a superadded mode, not of relation but of duration. Against this: just as it is one thing to have existence and another to have a superadded mode, so the similarity of Peter and instant A in having existence is one thing, and their similarity in having a mode another, since the founding reasons are really distinct. Therefore the latter similarity is not constituted by the former, but the former consists in the existences alone. The point is pressed: Peter actually exists at a sign prior to the mode of duration, since he is its cause, at least material cause. But at such a sign he already has what suffices to be called similar in existing, and consequently coexistent, with any terminus likewise existing. For he

already bears himself in existing as does the terminus. Therefore, if instant A likewise is understood actually to exist prior to its own mode of duration, nothing is lacking for both to be said to coexist, or to have similarity in existing. Add that at that sign Peter and the instant are actually assimilated in the fact that both are causes in first act of their modes. But this similarity, which certainly presupposes or includes coexistence, cannot be constituted by the modes themselves, which have not yet been posited, as is manifest.

5. Some with Cardinal de Lugo deny that a thing exists prior to the mode of duration, for they identify this mode with the productive action of the thing, which they say is essentially successive and varies at each moment. But this doctrine is judged improbable by the Eminent Doctor, d. 21, *Met.*, s. 2, n. 6, and is displeasing to most authors of the first opinion, who commonly place duration in a mode resulting posteriorly to the existence of the thing, after the manner of ubication. Nor is it easy to believe that an action must essentially vary while neither its principle nor its terminus varies; that St. Peter's beatific vision must be continuously varied throughout eternity according to the probable opinion concerning the non-distinction of a vital act from its own production; and that God can in no way defer until tomorrow the action by which today He creates or conserves a rational soul. Moreover, the same could be said of ubication, namely that it is identified with the production of the thing and that this production essentially varies according to the variety of places; which appears sufficiently absurd and alien to common understanding. Furthermore, the force of the proof already given remains. For the actual similarity of Peter and the instant under the notion "distinct from its own production," or "having existence distinct from production," is certainly not constituted by production itself; and yet it includes coexistence and consequently duration.

6. Another reason may be added, by which every escape seems to be closed off. The coexistence of matter and substantial form is not constituted by a mode; therefore neither is the coexistence of a thing and instant A. The consequence is legitimate because the first opinion alleges nothing which does not apply equally in both cases. The antecedent is proved: the coexistence of matter and substantial form is constituted by no accident; therefore it is not constituted by a mode, since according to its authors a mode is accidental, whether it is identified with the production of the thing or not. The antecedent is proved: the coexistence of matter and form intrinsically constitutes the substantial composite. But nothing constituted from something accidental can intrinsically constitute a substantial composite, as all admit. Therefore. The rest is evident, and the major seems indubitable. For it is repugnant that a man, for example, be understood as

actually existing or actually constituted without body and soul being understood to coexist, or to exist together, insofar as they actually constitute the man. Certainly man by reason of his substantial quiddity is a simultaneous whole; therefore simultaneity of his parts in existing belongs to his quiddity, and this simultaneity is most formally coexistence.

7. Furthermore, Peter formally endures in instant A through that through which he formally excludes the absence of himself while that instant exists. But he does not formally exclude the absence of himself through his own production, nor through another mode distinct from his own existence, but solely through his absolute existence. Therefore. Certainly Peter, not yet produced in instant A, is not only indifferent to modal duration in B, but also to his own absolute existence in the same B. Yet this indifference to existing is formally removed not by a mode but by existence itself, as is certain. And provided such indifference is understood as formally removed in instant B, by that very fact Peter is understood as coexisting with that instant, or enduring in it. Thus, by the very fact that he is understood to have formal existence while the mode of duration exists, he is understood to coexist with the mode itself, without another mode.

8. Finally, the example of ubication with which the contrary opinion arms itself will be turned back against it in nn. 10 and 11. For now it is turned back thus. If, on the supposition that Peter exists, place A could not exist without surrounding Peter, there would be no need of a mode of ubication for Peter to be in place A; just as matter would not require a distinct union if, on the supposition that matter A exists, form B could not exist unless united to that matter. Since, therefore, on the supposition that the thing exists it is wholly repugnant that instant A should exist without the thing coexisting with it, or, what is the same, enduring in it, a mode of duration beyond the existence of the thing and of the instant is superfluous. Hence the difference between ubication and duration is plain. Ubication is posited as distinct from the thing and place precisely because the thing and such a place can actually coexist without the thing being in that place. But the opposite occurs with a thing and time, as is certain. Hence the argument: it is contradictory that the duration or coexistence of Peter and instant A should fail except through the absence of at least one of these extremes; therefore that duration or coexistence does not require a mode distinct from the existences of both. The consequence is clear by induction through all cases in which modes distinct from things are posited.

Foundation of the First Opinion.

9. For the first opinion the argument is as follows. Peter's duration today, for example, is not Peter's existence alone; otherwise Peter could not exist without enduring today. Nor does it consist in the existences of Peter and this day, because Peter and this day can exist without Peter enduring today, namely if Peter exists yesterday or tomorrow. It remains, therefore, that this duration consist in a superadded mode. If it is said that it consists in the existences of Peter and the day, not posited successively but simultaneously, against this: either existence can be posited without their being posited simultaneously; therefore in this "simultaneously" something is included besides the existences themselves. Confirmation: if Peter exists yesterday and not today, tomorrow it will be true that Peter and today existed, and yet it will not be true that Peter's duration today existed. Similarly, before yesterday both existences were future, and yet Peter's duration today was not future. Likewise, God from eternity decreed and saw the existences of Peter and this day, yet He did not decree or see Peter enduring today. Therefore Peter's duration today is not constituted by the existences alone of Peter and this day. The consequence is proved because it is contradictory that what is verified of all the constitutive elements, namely that they existed, or will exist, or are seen by God, should not be verified of what is constituted.

10. The argument can be pressed in the actual similarity which Peter and this day have under the notion "existing," insofar as it is really contradistinguished from the similarity of each under the notion "enduring through a superadded mode." Likewise in the coexistence or simultaneity of matter and substantial form insofar as apt to constitute a substantial composite. Likewise, and quite effectively, in Peter's ubication A compared with extrinsic place A. For Peter's existing in extrinsic place A does not, first, consist in Peter's ubication A alone, since this can exist without a real extrinsic place, from what was said in c. 1. Second, it does not consist in the entities of such an ubication and such a place, because such an ubication and place A can exist without Peter being in place A, if, for example, the ubication exists yesterday without the place and the place today without Peter's ubication. It remains, therefore, that it consists in another mode superadded to the ubication and place, a consequence which everyone would judge absurd. The confirmation of the argument can similarly be applied.

11. If it is said that in this object, "Peter is in place A," there is included the coexistence of such an ubication and place, I grant it. But from this I infer that this coexistence is not distinguished from the entities of the ubication and place. 1º Because if coexistence further includes modes of duration by which the ubication and place correspond to the same time, the denomination "located" will not be furnished by ubication alone together with the existence of the place, but will furthermore intrinsically and formally include a mode or modes of duration, which greatly conflicts with the common understanding, according to which ubication together with the existence of the place is the sole form of that denomination. 2º Because the denomination "existing in place A" remains the same and unchanged although times or instants vary, as is manifest in the center of the earth, or even in a tower or any other thing remaining immobile for some time in the same extrinsic place. But that denomination will vary incessantly if it is constituted from a mode of duration, since this varies at each moment.

12. Hence to the objection I grant the major, n. 9, concerning Peter's duration, not absolutely taken apart from comparison with time, but insofar as it is today's duration, or coexistence with this day. But I distinguish the minor: it does not consist in the existences of Peter and the day posited successively, I grant, and this alone is proved by the attached reason; posited simultaneously, I deny the minor and the consequence. In this "simultaneously" nothing is included besides both existences together with the exclusion of succession. And since succession implies the concurrence of each with the absence of the other, what suffices to exclude such concurrence suffices to exclude succession. But the concurrence of the day with the absence of Peter is formally excluded by the very fact that the absence of Peter while the day exists is excluded; and this absence is without doubt excluded by Peter's existence, every other mode being prescinded from.

13. Or in other terms: for Peter and the day to exist "simultaneously" implies the existence of each so posited as to verify this proposition: "Each simply exists," or "Both simply exist," or "While one simply exists, the other actually exists." Thus succession is plainly excluded, by virtue of which, while one exists, the other is past or future; for what is merely past or future does not actually and simply exist. But in order that the proposition "Each simply exists," and the same applies to the others, be verified, the actual existence of one and the other suffices, apart from modes of duration. Proof: that proposition has the same verifier as these two propositions, "Peter actually exists; the day actually exists," for from these as from premises the first is inferred by the rule of ascent. But the verifier of these involves

nothing beyond the bare actual existences of Peter and the day; for that Peter actually exists is verified not through a superadded mode but through existence as actually exercised. Therefore, and so forth.

14. It may be said: the proposition "Peter exists," by reason of the verb, consignifies intrinsic time or duration, because it is proper to a verb to signify with time, as is taught in the *Summulae*. I grant it. But from this I infer that every existence actually exercised is its own absolutely stated duration, its own intrinsic time, its own present, its own now, because every existence fully verifies the verb "exists." This is clear, both because Peter, prior to the mode of duration posited by you, or insofar as really contradistinct from it, truly exists; and because the existence alone of the mode verifies the proposition "the mode exists." Otherwise it would require a new mode, and there would be an infinite regress. Therefore Peter's existence alone, which certainly is no weaker, also verifies the proposition "Peter exists."

15. Now to the confirmation in n. 9: of Peter and such a day posited successively it can indeed be verified that they existed or will exist and that they are decreed and foreseen from eternity, although the same is not verified of Peter's duration today. But it is otherwise with Peter and such a day coexisting or posited simultaneously, or given in such a way that this objective truth, "each simply exists," has at some time been, will be, or was foreseen by God. For in this way whatever is verified of them must be verified of Peter's duration today. Nor must whatever belongs to all the constitutive elements given successively belong to what is constituted, that is, when the being of one constitutive element is joined with the absence or non-being of another. For they do not constitute in this manner, unless perhaps the whole itself is successive, which Peter's duration is not as now taken, namely insofar as it is Peter's coexistence with each instant of day A.

16. Besides the counterexamples in n. 10, I add this other one. Today it is verified that yesterday's light and darkness have passed, namely the light of the day and the darkness of the night; likewise it is verified that tomorrow's light and darkness are future. Therefore it is verified that all the constitutive elements of a chimera composed of the "being and non-being" of light have passed or are future, for there are no other constitutive elements of this chimera besides light and darkness, at least if a chimerical being involves nothing distinct from every possible being, as the opinion accepted by most of the Adversaries holds. How then has what is constituted, that is, the chimera itself, neither passed nor been future? Certainly for no other reason than that the chimera is not constituted from the "being and non-being" posited successively but from them as given simultaneously; and yet in this

"simultaneously" nothing is included besides "being" and "non-being." If one wishes also to include identity of time, I will transfer the example to the "being and non-being" of the mode by which instant A endures.

17. It is replied: it cannot happen that this proposition, "Peter and instant A will exist," is true while this one is false, "Peter will endure in instant A," if each affirms an entirely identical object. I press the objection: the object of these propositions seems no less entirely identical: "Light and darkness will exist"; "Light that is not light will exist." Therefore one cannot be true while the other is false. It must therefore be denied that each affirms an entirely identical object if the first concerns the existences of Peter and the instant as to be posited successively. For in that way it affirms each existence as concurring with the absence of the other, which is also to affirm that the absences of each will successively be future. But the second proposition does not affirm such absences, but rather denies them, at least implicitly; for it yields this sense: "The existences of Peter and the instant will exist, and neither will concur with the absence of the other." But if the first proposition is explained thus, "At some time it will be true to say: Peter and instant A exist," it will entirely agree with the second and neither will be true without the other. Here it must be noted that, given a merely successive pastness or futurity, it is false that the physical complex of the entities of Peter and instant A has passed or is future. For that is neither past nor future which was not, or will not be, at some time present. But in the proposed hypothesis that complex never was nor ever will be truly present; just as for the same reason the complex of light and darkness, or of the existence and absence of light, neither was nor ever will be present. Hence it must be denied that anything is verified of such a complex which is not verified of Peter's duration in instant A.

18. Yet because the argument so far examined can always return in a troublesome form until it is explained what is lacking in two existences posited successively that exists in two given simultaneously, perhaps you will solve it more readily if you keep before your eyes that for two things to exist successively is nothing other than for each to exist without the other, or to exist while the other does not exist. Hence it is never true to say of them, "Both exist," or "Each exists." Thus a predicate belonging to two things in a successive sense does not belong to both after the manner of one subject or complex, but only to each singly, or dividedly from the other. It is otherwise when the predicate belongs to two things in a simultaneous sense; for then it belongs to both after the manner of one complex, or one duality or collection. Hence the successive and simultaneous senses differ almost in the same way as the collective and distributive senses. For just as to take all

the parts of a composite distributively is to take each apart from the others, and therefore it is true of all in this sense that they compose the whole and are less than the whole, whereas to take them collectively is to take them all after the manner of one subject, in which sense they do not compose the whole nor are less than the whole; so must one reason in our matter, and indeed with still greater force, since succession expressly removes concurrence or association in existing.

19. Hence you will infer that the simultaneous existence of two things adds something over their successive existence. What? That which two things add over the individual things, or which the collection of two adds over each taken separately; or also that which all the parts of a composite, namely matter, form, and union, accepted collectively add over all of them taken distributively. Consequently, just as it is truly denied that those three constitutive elements taken distributively are three collectively, although "collectively" does not add a new mode over matter, form, and union, so it must be denied that two existences given successively are two posited simultaneously, although "simultaneously" does not add a mode distinct from both. Since, therefore, the name "Peter's duration today" signifies the existences of Peter and this day in a simultaneous or collective sense, it cannot be verified of those existences given successively; just as for the same reason the name "man" is not verified of all his constitutive elements taken distributively. Hence it must be denied that it is verified of those existences given successively that they are decreed and seen by God, or are past or future, in a collective sense. For God neither decrees nor sees their objective collection, nor can a collection be past or future which never was nor will be present, as is evident of itself. It can indeed be simultaneously verified of them, by simultaneity of verification, that they are past; but not that they are past simultaneously, that is, that they simultaneously passed or existed, since it is evident that things which existed only one after another did not exist simultaneously. Hence, even as past, they cannot be truly signified in a simultaneous or collective sense on the part of the object. Thus it belongs simultaneously to the days and nights of a past year that they have passed, but not that they passed simultaneously or collectively; otherwise it would be true that day and night existed simultaneously, or that the collection of light and darkness was at some time present. Hence you will gather that names of time, such as hour, day, year, and so forth, are not properly collective, because no true real collection on the part of the object corresponds to them.

20. To forestall other difficulties, observe 1º: the indifference both of Peter and of day A to coexist, or to exist one while the other exists, is not

physical indifference, which would suppose each simply to exist, but merely logical indifference, by which one is indifferent as to whether it is something or nothing while the other exists. Such indifference is removed radically through God's decree, by way of becoming through the productive action, and formally through existence itself actually exercised; in no other way than the indifference of each thing simply to exist or not exist, apart from comparison with time. 2º The duration of a permanent creature, taken directly or considered without respect or comparison to extrinsic real or imaginary time, is not successive, nor greater or lesser, longer or shorter, but receives these denominations extrinsically from the parts of the time signified obliquely, namely from their continuous flow and greater or lesser number. Nor for that reason is such duration, as regards what is directly signified, "whole simultaneously" in the sense in which God's eternity is whole simultaneously, both because it is not the possession of interminable life, since it can be terminated by its own absence, and because it does not simultaneously and immutably possess all the intrinsic perfection of which it is capable, since it can be perfected successively by various affections.

21. 3º Time is called essentially successive not because it consists of entities incapable of existing except successively, but because the parts of motion are constituted under the notion of time through immediate succession, although this succession is accidental to them. For no part of motion is called a part of time except insofar as it implies immediate priority with respect to the part that is to follow and immediate posteriority with respect to another past part. If either that priority or posteriority is lacking, by that very fact the part of motion ceases to be a part of continuous real time; and there will be only imaginary time, that is, the possibility of an immediate succession of parts of motion. 4º For a thing to endure in imaginary time is for it so to exist that, without a new determination of itself, it must coexist with motion or real time if this is given. But to endure in such determinate imaginary time is not to require a new determination in order to coexist with motion at such a distance from the beginning of the world or from another moment designated in reality or thought. Finally, for a thing to endure through more or less imaginary time, for example an imaginary century, is so to exist that it can truly be said: "If real motion had existed from the time this thing began to be, a century would now have passed." All determinations of this kind, however, proceed formally from the existence of the thing actually exercised. Hence you will gather that the duration of a thing in imaginary time can be known by an Angel or by God without fiction, and that in relation to it the thing can be called longer- or shorter-lasting, or even older than the world, and so forth.

22. Let these things be said in favor of the second opinion, which seems to be preferred at least on account of authority, since it otherwise adduces sufficiently weighty reasons in its favor. Yet I would not deny that the first opinion is highly probable, and seems clearer and more apt for explaining several difficulties, and also more consonant with the common doctrine concerning the nature of place and ubication.

CHAPTER V.

Whether a Creature Could Have Existed from Eternity.

That no creature has existed from eternity is certain among Catholics. The question, however, is whether it is repugnant for a creature to be produced from eternity. One creature is permanent, such as an Angel or man; another is successive, consisting of parts prior and posterior in existing, such as the motion of the Sun. I assert 1º: it is not repugnant for a permanent creature to be produced from eternity. This is the common opinion with the Angelic, Subtle, and Eminent Doctors. It is proved because production of this kind is repugnant on no ground. First, not because the cause would not be prior in duration to the effect. For a cause need not precede its effect in duration but in nature. Thus the Sun produces light, and an Angel cognition, in the first moment of their existence. Second, not by reason of real production distinct from the principle; otherwise the Divine Word would not have been begotten from eternity. Nor, third, by reason of being from another, or of being a creature. For the concept of a creature is preserved provided it essentially depends upon the free will of God and so exists that it absolutely could not have existed. This would certainly be true of an Angel produced from eternity. Finally, it is not repugnant on the other grounds commonly objected, as I shall now show.

1. It is objected 1º: an Angel produced from eternity would not be created from nothing, which is contrary to the concept of a creature. 2º The holy Fathers argue against the Arians that the Divine Word is not a creature because He is from eternity. 3º No creature can be coeternal with God or claim for itself the attribute of eternity. 4º That creature could not be destroyed by God throughout eternity, which is no less contrary to God's dominion than if the creature could not be destroyed for a thousand years. Likewise, if an Angel created from eternity sinned without delay, he could not be converted throughout the whole of eternity nor cease from sin. Yet these objections have no force.

3. To 1º: an Angel from eternity would be created from nothing as from no subject, or from no subject whatever; he would also be created from his

own nothingness as possibly preceding him. Nor does it belong to the concept of a creature that it presuppose its own actual nothingness, but that of itself it can presuppose it or follow it. To 2º: the argument of the holy Fathers proceeds as to fact according to Sacred Scripture, from which it is established that nothing was created by God except in time or together with time. It also proceeds against the Arians on their own admission, because they acknowledged that every creature was created in time. To 3º: it is indeed repugnant for a creature to be coeternal with God, that is, equal to God in the attribute of eternity. For God's proper eternity is an intrinsic, essential, absolute, and supreme necessity of enduring from eternity and forever, supremely perfect and independent of another; and such certainly cannot belong to any creature. Yet a coeternal creature is not repugnant in the sense of one always coexisting with God toward the past through an imperfect and participated duration arising from God's free will, just as for the same reason it is not repugnant for it to be coeternal with God toward the future.

4. To 4º: it must be admitted that an Angel created from eternity could not be destroyed by God except in time, when he had already endured through eternity. For if he were destroyed from eternity, the production and destruction of the Angel would be coeternal, which is contradictory. Hence it is the same for God to decree the Angel's existence from eternity and to decree his eternal duration toward the past, just as it is the same to decree the existence of a thing in one instant or throughout an entire year and to decree the thing's instantaneous or annual duration. Yet it must be denied that this necessity of conserving the Angel throughout eternity is contrary to God's dominion, because it is not a necessity antecedent to, but consequent upon, God's free decree concerning the Angel's eternal existence, especially if it is not founded in some created entity which of itself absolutely cannot be produced except with the obligation to remain, such as would be a mode of duration distinct from the Angel's existence and indivisibly corresponding to the whole of eternity toward the past. Thus it is not contrary to God's dominion that an Angel or rational soul should necessarily be conserved forever on the supposition of a free Divine decree concerning its eternal duration toward the future. Moreover, an Angel sinning from eternity could not be converted except in time, nor cease from sin except after eternity, lest otherwise the existence and cessation of the sin be coeternal. Nor would the sin for that reason fail to be absolutely free for the Angel, because that necessity of enduring would merely follow upon the Angel's free determination from eternity to sin. Similarly, a man created from eternity

with his eyes open could not close them except in time; nor would fire applied to tow from eternity burn it except after eternity.

5. I assert 2º: it is repugnant for a successive creature, or successive being, to be produced from eternity. This is the more common opinion in our School with Fr. Suárez, against many Thomists and Authors of ours whom Fr. Peynado cites and follows, l. 8, disp. un., s. 2, where he also explains that, in the opinion he holds, a successive being is not called eternal by affirmation, as though some determinate part of it or a collection of all its parts had existed from eternity, but only by negation of a first part of all, before which no other preceded; just as an eternal succession toward the future is not called eternal except by negation of a final part after which no other remains. Our assertion, however, is briefly proved from the repugnance of a categorematic infinite, which we shall show in the following disputation. For if real time, for example, had existed from eternity, infinitely many hours would by now have existed, whose multitude can be called categorematic just as the multitude of the parts of a past year can. Or certainly the Angels whom God might, as He could, have created one in each hour would now be actually infinite. Indeed, even among those who admit an actual infinite, this infinity of Angels must be judged repugnant; for they all warn that an infinite multitude cannot be produced successively by God, although it can be produced simultaneously. But those Angels would have been created only successively.

6. Moreover, according to Aristotle and all others, it belongs to the concept of the infinite that it cannot be successively traversed. But if time had existed from eternity, an infinity of hours would by now have been traversed. Nor does it help to say that the infinite is successively untraversable only insofar as it is infinite, but not insofar as it is not infinite; and therefore that time given from eternity, because it is infinite toward the past, is untraversable toward the past, that is, in ascending toward eternity, but because it is not infinite but has an end toward our own time, it can be traversed toward that time. This is explained by the example of a line infinite toward the east but finite toward the west. This, I say, does not help. First, because the multitude of hours would be no less infinite than any other infinite multitude, for example an infinite multitude of men; but an infinite multitude of men would be successively untraversable from every direction or side. Second, because all the hours, insofar as flowing from eternity down to our time, are infinite; but all, insofar as so flowing, have been successively traversed. Therefore, insofar as they are infinite, they are successively traversable. Hence the Adversaries beg the question. For when we argue that it is repugnant that an infinity of hours should have an end in our time

because otherwise it would be successively traversable, they answer nothing other than that an infinity of hours has an end in our time. We say the same in the example of the line if the whole line is successively traversed.

7. It is objected 1º: a successive being can be continued throughout eternity toward the future; therefore also throughout eternity toward the past, for it is no more difficult to lack a beginning than to lack an end of duration. 2º Imaginary time is eternal toward the past, for no first assignable instant of it exists before which the imagination does not find another and another earlier instant. But imaginary time is real motion capable of existing successively. Therefore such motion can exist without a beginning of duration, and consequently from eternity. To 1º, I deny the consequence, because our proofs do not apply equally in both cases, as will be clear to one who considers them. Certainly, from eternity toward the future it does not follow that it will ever be true that infinitely many motions have successively passed, but only that motions will not have passed without several others still being to pass; and this is merely syncategorematic infinity. To 2º, I deny the antecedent. For no instant capable of existing can be conceived which, if it existed, would not presuppose eternity before itself. Hence God from eternity does not coexist with or correspond to imaginary time. I grant that no instant can be assigned which excludes another earlier possible instant. Yet from this only a syncategorematic infinity of succession toward the past is proved, by virtue of which, before any beginning of time whatever, another earlier beginning can be given. But this excess in antiquity is always conceived as having a beginning of duration if it existed, and consequently is not conceived as capable of being eternal toward the past. Hence this proposition, "imaginary time lacks a beginning," must be distinguished thus: it lacks a beginning excluding the possibility of another earlier beginning, I grant; it lacks a beginning excluding a past series of durations or motions capable of existing without a beginning, I deny.

DISPUTATION III.
ON THE INFINITE.

CHAPTER I.
What the Infinite Is; and Whether a Most Perfect Creature Is Repugnant.

1. The infinite is that which lacks an end, that is, a terminus; hence it means the same as interminate or unlimited. One infinite is infinite simply in every genus, namely, that which formally or eminently contains every possible perfection, and is also usually called "the infinite beyond genus" or "the infinite by essence"; this is God alone. Another is infinite in some determinate genus, namely, that which is unlimited in that genus, yet does not extend to others. Such is the infinite "of multitude," for example, an innumerable multitude of men or stones; the infinite "of intensity," for example, heat intensified without end in the same part of a subject; the infinite "of extension," or "of quantitative magnitude," as if a body, line, or surface be considered as occupying space without a terminus. Here we discuss only the infinite of a determinate genus.

2. This, moreover, is defined from Aristotle, here, bk. 3, t. 62, as "That from which there is always something further to take"; or more clearly from the same author, t. 63, as "That whose parts" (understand finite parts) "leave, for one taking them successively, others and yet others to be taken without end"; or, more briefly with others, as "That which cannot be traversed successively." Hence it belongs to the concept of the infinite that it

can never, not even by God, be exhausted by any finite numeration, computation, or measure, however much multiplied successively; for if it could, it would already have a terminus, or a last part, which is contrary to the notion of infinity. Hence the infinite is called "innumerable, immeasurable, untraversable," and also "unknowable" successively, namely, by a cognition taking part after part and at length running through them all. God, however, by one and most simple intuition, knows whatever of infinity can exist in things.

3. The infinite is commonly divided into categorematic and syncategorematic; or, what means the same, into the infinite in act and the infinite in potency. The categorematic infinite, or infinite in act, is that which is conceived as having infinity actually posited; as if an actually existing infinite multitude of men were conceived. The syncategorematic infinite, or infinite in potency, which is customarily explained by "not so many that there cannot be more," is that whose parts have infinity only in an increase possible to them, insofar as more and more can be superadded without end, although they never arrive at actual infinity but always remain finite without end; or also insofar as they will in fact be so superadded that none will ever be the last. In this way eternity *a parte post*, such as belongs to St. Peter in Heaven and Judas in hell, involves durations, for example hourly ones, that are syncategorematically infinite.

4. The following are usually assigned as properties of the infinite. 1º That neither does a finite addition make it infinite, nor does a finite subtraction render it finite. Hence the common maxim that "the finite added to the finite does not make the infinite"; and likewise the finite subtracted from the infinite does not destroy infinity. The reason is manifest, because otherwise the infinite could be measured or numbered. 2º That it contains all species of numbers replicated infinitely, namely, infinitely many twos, threes, hundreds, millions, etc. For if an infinite multitude of men, for example, had only finitely many millions, it would undoubtedly be successively numerable. The same must be said of measures, such as palms, cubits, ells, etc., with respect to the infinite of extension. 3º That the infinite in act, if it were given, would be divisible without end into more and more infinites. The reason is evident. Suppose God produces infinitely many pairs and then removes infinitely many units; infinitely many units would still remain. And by that very fact infinitely many pairs would remain, as we have just seen in property 2º. God could therefore again remove from these another infinite number of units, infinitely many units still remaining; and so onward without end. 4º That one infinite, insofar as it is infinite, is not greater than another, at least formally, that is, in the character of excluding an end.

5. As regards the possibility of the infinite, there is no room for doubt that the syncategorematic infinite is possible, at least with respect to a multitude of similar things, or individuals of the same species, especially after the Council of Constance, Session 15, condemned the error of John Hus and others who asserted that rational souls cannot be created by God beyond a certain number. For if souls can never be created in such a number that more cannot still be created, by that very fact they are syncategorematically infinite. The same reason obtains in any other multipliable species, for example fiery, stony, equine; and also in the continuation of a quantified and extended body, for example fire or water. For there is no shadow of repugnance in this, that, once any finite multitude of stones or any finite extension of water has been posited, God can superadd other stones or other parts of water. Indeed, it is plainly repugnant to God's Omnipotence that in these and similar things He should be unable to proceed further, as though exhausted and spent. The same must be judged of the intensive increase of qualities and also of a continued series of durations or motions of the heavens.

6. There is nevertheless a doubt whether the syncategorematic infinite is repugnant with respect to an increase of specific perfection, that is, whether a highest species of creatures is repugnant, than which none more perfect could be produced by God; or, in common terms, whether a creature most perfect of all is repugnant. The most common opinion, and in my judgment the true one, affirms that it is repugnant, against certain older authors, with whom Fr. Arriaga and the Scotist Pontius agree. It is proved: it pertains to the infinity of Omnipotence to be able to produce not so many individuals of the same species that more cannot be produced; therefore also to be able to produce species more and more perfect without limit. The consequence is proved. First, because in either case it is equally unfitting that an infinite power should at length be exhausted and, as though wearied, stop at a limit beyond which it cannot pass. Second, because the perfection of an active power is undoubtedly commended more by the multiplication of species increasing in perfection than by that of equal and similar individuals, as is evident from the example of created causes. Therefore the Divine power would be deprived of a nobler prerogative if it were forced to stop at some last and highest species than if it were said to be able to arrive at a last individual.

7. It is confirmed: no finite magnitude of quantity is repugnant to being exceeded by another likewise finite magnitude. Likewise every finite multitude, or every finite number, can be exceeded by another finite one; nor is a greatest of all finite numbers possible, as the adversaries admit and as is

manifest, for whatever number be designated, the addition of unity will make a greater. Similarly, no finite duration is so far distant from the present time that it cannot be exceeded by another. Therefore likewise no creature, which of course can only be finite and limited in the line of essential perfection, is possible which excludes another essentially better creature, since here likewise there is finitude, and scarcely any difficulty occurs which does not equally militate in the examples just given.

8. It is objected 1º: God can produce the most perfect creature that He can produce; therefore let Him produce it, and behold a most perfect creature. Arriaga says that this proposition cannot be denied, since it is identical. But I deny the presupposition of that proposition, namely, that among the creatures God can produce there is a most perfect one. And I press the point with these entirely similar cases: God can produce the greatest finite number that He can; the greatest finite quantity that He can; the last and most remote duration that He can; or even the best chimera that He can. It is objected 2º: not every creature is exceeded by another, for beyond all of them no other remains; therefore some is not exceeded by another, according to the Summulist rule, "Not every: some not." Having first made the same objection with finite numbers and quantities, I answer by denying the antecedent if "not every" is taken distributively, as it ought to be and as it is taken by the Summulists. For in this way every creature, that is, each one, is exceeded by another; and there is none which is not exceeded; and beyond all, that is, beyond each one, another always remains, because there is none beyond which another does not remain. If, however, one chooses to take that term collectively, let the antecedent pass, and I deny the consequence, because the Summulist rule does not speak of a term taken collectively.

9. It is objected 3º: in a series of causes one must arrive at some cause that is caused immediately by God alone, lest otherwise there be reciprocal priority; therefore in the multitude of possible creatures increasing in perfection one must arrive at some creature that is immediately exceeded by God alone, lest otherwise there be reciprocal excess. But first there is an evident parallel in number, duration, and finite quantity. Then I deny the consequence, because a series of actually existing causes, from which the common demonstration of the First Cause is drawn, is necessarily finite, since an infinite in act is repugnant. Therefore such a series must be such that by numbering one can arrive at that cause from which the origin of productions began; and unless that cause is reciprocally caused by its effect, it must necessarily be caused by God alone. But among possible creatures increasing in perfection there is a syncategorematic infinity, by reason of

which one can never arrive at a last or highest one which is exceeded by God alone, just as neither can one arrive at any one which, in the same genus, reciprocally exceeds that which exceeds it. Add that, even if an actually infinite series of produced causes were granted, reciprocal priority would be avoided provided the whole collection were posited as dependent upon God. Hence, since in our case the whole collection of possible species, if it can truly be taken as a whole, is exceeded by God, reciprocal excess will likewise be avoided. Hence you will gather that not even God Himself can know a highest species among the possibles, because He cannot know a chimera among possibles. Nor for that reason will Divine knowledge be vague or uncertain; rather, by a simple intuition He knows all possibles, and knows that there is none among them which cannot be surpassed by another.

10. It is objected 4º: a most imperfect creature is possible; therefore also a most perfect one. I answer 1º by denying the consequence, because the treasury of Omnipotence is not impoverished because it cannot give less, but because it cannot bestow something more or better while bestowing something finite. I answer 2º by denying the antecedent, because Divine perfection seems to be infinitely participable both upward and downward, so to speak. Nor should you infer from this that any creature would be of infinite perfection because it exceeds infinitely many others. For such an excess does not require proper and formal infinity, but virtual infinity suffices, consisting in the fact that the thing is in a higher order. Thus, without formal infinity, the beatific Vision surpasses infinitely many material visions, an Angel infinitely many ants, Grace infinitely many degrees of whiteness, etc.

11. It is objected 5º: the collection of all possible creatures is of only finite perfection, since it is infinitely distant from God; and yet beyond the collection of all no more perfect creature is possible. Therefore a creature excluding another perfection is not repugnant on account of finitude. It is confirmed: the collection of all possibles approaches God supremely; but it does not approach Him supremely by reason of all or of many species, especially if all species are unequal, as numbers are, according to many; therefore by reason of some highest species. To the objection, the presupposition is denied, namely, that the collection of all possibles is possible. For that is possible which, if it existed, would not involve contradiction; but that collection would involve contradiction, as we shall say in the following chapter. Therefore all possibles cannot be taken by way of one collection whose perfection is truly said to be finite or infinite, or approaching God, since rather such a collection is nothing, or chimerical. It is permissible only to take individual creatures or individual finite

collections of them; among these none can be designated than which another greater and more perfect is not possible. From this the confirmation is also solved.

12. Yet, granting for the moment the possibility of an infinite collection, I distinguish the major premise of the objection: the collection, etc., is of finite perfection in the line of being as such, I grant, for it lacks the proper perfection of uncreated being, by which it is infinitely exceeded; in the line of created or creatable being, I subdistinguish: it is of finite perfection with respect to the individual parts, I grant; with respect to the series of all increasing in perfection, I deny the major premise. For such a series is interminate and therefore infinite, both in the multiplication of individuals and in specific increase, no otherwise than the collection of possible finite numbers, although finite with respect to each individual number, is infinite and innumerable with respect to the series of all numbers increasing in such a way that another greater than each can be given. This sort of infinity on the part of the terminus suffices for God to be called infinitely participable, or participable without end, and for there to be no designable creature by which Omnipotence is so exhausted that it cannot produce a better one. To the confirmation: that collection approaches God supremely by the negation of another thing approaching more, but not by the affirmation of some determinate thing of which a highest or ultimate approach is verified.

13. Finally observe that our opinion indeed applies to species, but not necessarily to classes, grades, or genera of subsisting creatures. Only four such genera are numbered, namely, of inanimate, vegetative, sensible, and intellectual things; for no subsisting creature seems conceivable which does not belong to one of these grades. Yet, since each admits under itself infinitely many unequal species, room remains for the Divine goodness always to be more and more perfectly participable without end. Observe further that Grace and the beatific Vision, although called highest species, the former in the genus of quality, the latter in the genus of cognition, can nevertheless always be made by God better and more perfect, at least by gradual intensification; and this suffices for us. The very mode of hypostatic union can also be made physically more perfect insofar as it regards the created extreme. That nothing greater than the work of the Incarnation, or than the composite "Christ," is possible is not surprising, since God Himself is included there. The dignity of Motherhood in the Mother of God is likewise constituted by the Divinity of the Son morally united to her; and therefore none greater can be given in a pure creature.

CHAPTER II.
Whether the Infinite in Act Is Repugnant.

1. The proposed question concerns the categorematic infinite, whether of multitude, extension, or intensity. That it can be made by God is defended, together with certain ancient Fathers, by Vázquez, Hurtado, Arriaga, Lynce, Izquierdo, and others, whom Fr. Peynado cites and follows, bk. 3, d. 3, s. 3. Certain Scotists cited by Mastrius, d. 10, q. 3, also join them. Yet among these authors some except the infinite of intensity, others that of extension or spatial magnitude. On the contrary, the common opinion holds that every such infinite in act is altogether repugnant. This opinion is defended throughout every school, with St. Thomas, St. Bonaventure, Scotus, and Suárez, by the Doctors cited and followed by Mastrius, l.c., and Fr. Quirós, d. 63, s. 2 and 3. This opinion seems preferable. Omitting for brevity infinitely many other arguments by which it is usually proved:

2. It is proved 1º: a being which God cannot produce without producing something superfluous to its existence is repugnant; but such is an infinite multitude, of men for example; therefore. The major premise is certain, for that superfluous thing would at once be and not be superfluous, or would at once be necessary and unnecessary. It would be superfluous, or unnecessary, as is supposed, and simultaneously would not be, because that without which a being A cannot be produced by God is certainly not superfluous but necessary to the existence of that being. The minor premise is therefore proved: an infinite multitude can never be produced by God without having many, indeed infinitely many, parts without which it could formally exist as the same thing; but such parts are superfluous, or unnecessary, to the existence of such an infinite; therefore. The major premise is proved from the nature of the infinite explained in the preceding chapter, n. 4. For an infinite of men, if it is truly infinite, must be such that, if one hundred are removed, it remains infinite and, according to the adversaries, formally the same, because it is diminished only materially. And though one remove another and another hundred successively without end, it will likewise remain infinite. Indeed, since infinitely many pairs are contained in it, infinitely many units can be removed while an infinity of units remains formally the same; and since in this there must still remain infinitely many pairs, for otherwise the infinity of units would be successively numerable by pairs, which is repugnant, another infinity of units can again be removed without formally impairing the prior infinite; and so onward again and again

without end. Hence you see that an infinite multitude cannot even by God be reduced to precisely the parts necessary to its existence, nor can God distinguish in it what is necessary from what is unnecessary. This seems sufficiently contradictory, since predicates of this kind, being contradictory, cannot fail to belong differently to parts really distinct.

3. It is proved 2º: every infinite multitude is infinitely infinite, as is clear from the preceding chapter and as no one doubts, for it contains all numbers, twos, hundreds, millions, etc., multiplied infinitely; and from it, always inexhausted, more and more infinites of units can be removed without terminus. From this, unless our opinion is true, it follows 1º that a whole can be given which is not destroyed when its two halves are destroyed. For if God produces infinitely many pairs and afterward destroys infinitely many units, He destroys one half of that infinite. Thereafter, from the remaining infinity of units, in which infinitely many pairs still remain, for otherwise it would not be infinite, God can destroy another infinity of units, while another remains no less infinite than before and therefore containing infinitely many pairs. Behold, therefore, two halves of the first infinite of pairs have been destroyed, namely, a double infinity of units, while nevertheless the infinite of pairs persists unimpaired, or formally complete. It follows 2º that in this very hypothesis, when God destroys one infinity of units, He simultaneously destroys and does not destroy what He previously produced. He destroys it, because in the destroyed infinity of units there is included an infinite of pairs, and God produced this. He does not destroy it, because in the other infinity of units remaining there still exists an infinite of pairs.

4. It follows 3º that in the same hypothesis the infinite of pairs is a certain whole not constituted by the parts by which it is supposed to be constituted, namely, by two infinites of units; for when these have been removed, that infinite remains formally complete. Likewise, it is a whole not greater than its part, since any infinity of units, which is its part, contains infinitely many pairs. Likewise, it is something one by unity of aggregation and at the same time not one, since it is divisible into several things such as itself, or into several things of the same nature as that which is divided, namely, into several infinites of units, each of which is an infinite of pairs. Yet this consequence destroys the concept of real unity even by aggregation, as is clear in an army or a heap of stones. It follows 4º that God cannot produce infinitely many pairs of men without producing infinitely many millions of them; which appears no less absurd than that God cannot produce one hundred pairs without producing one hundred millions.

5. Finally it follows that one infinite multitude can and cannot be less than another. It can, because if from infinitely many men you remove one hundred, there remains a multitude smaller than before and nevertheless still infinite. Likewise, if infinitely many Angels are joined to infinitely many men, there results a multitude twice as great. Likewise, if infinitely many men are produced individually with two eyes and with hair, the multitude of eyes or hairs will be greater than that of men, and indeed infinitely greater, since it contains as many eyes or hairs as there are men and, in addition, infinitely many others. Yet from another side it cannot. First, because no multitude greater than one infinitely infinite can be conceived, since there is no conceivable number which is not found there multiplied infinitely. Second, because just as the infinite simply and in every genus can admit nothing greater in any genus, so the infinite in some genus, for example multitude, admits nothing greater in the same genus. And indeed who can conceive one infinite in the genus of multitude to be infinitely exceeded by another infinite of the same genus? Third, because one infinite of extension cannot be exceeded by another. For if one line infinite in both directions were exceeded by another, it would terminate where it begins to be exceeded and would therefore have a terminus, contrary to the concept of the infinite. Something similar would happen in an infinite of intensity if it could be surpassed by another. Therefore the same must be judged of an infinite multitude, since there is no reason for disparity. For it is generally true that whatever is exceeded by another has, in the respect in which it is exceeded, a terminus or limit beyond which it does not advance, and is therefore in that respect limited and finite.

6. From this the common solution of the adversaries is refuted, namely, that one infinite can be greater or less than another, or can increase and decrease, not formally but materially. Against this, 1º: an infinite multitude can increase materially insofar as it can have more units than before, for example one hundred more. But that it cannot have more has just been proved. And otherwise there is no reason why one hundred palms could not similarly be added to a line infinite in both directions, since such a line is a certain infinite multitude of palms. Yet this addition, since it would be made to the last part, would by that very fact presuppose a last part of the line and thus a terminus and end. Think the same of an infinite intensity to which one hundred degrees were added. Against this, 2º: an actually posited infinite of pairs has certain formal parts, or parts by which it is formally constituted. What are they, I ask, unless a double infinite of units? For just as a pair is formally constituted by two units, and one hundred pairs by two hundred units, so infinitely many pairs are formally constituted by twice infinitely

many units. But one and another infinite of units can be removed from an infinite of pairs without removing the infinity, as is clear from n. 3. Therefore an infinite can be diminished with respect to formal parts, which is to be diminished formally.

7. Against this, 3º: what the adversaries seem to understand by "formally" is that one infinite cannot be less than another in the character of excluding an end, or that one infinite multitude cannot be less innumerable than another. But in the case of n. 5, if the multitude of men is exceeded by the multitude of eyes, it cannot be interminable or innumerable. For God knows by how much that multitude is exceeded and how it is commensurated with the other, or how much it lacks in order to be equal to the other. This certainly cannot be known unless God knows the multitude of men to be restrained within certain limits, or to be terminated at precisely so many units, or to contain precisely so many units and no more. For unless the units are reduced to a determinate number, how can it be known that they are fewer? But in this way the multitude of men is already known as finite. Add that the infinite of eyes, since it is twice as great as the infinite of men, doubles its infinity; therefore it exceeds it in the character of the infinite, just as Angel A, if he doubles in himself the intellectual power of another, exceeds him in the character of being intellectual.

8. From these considerations it is clear how strongly other absurdities commonly objected against the infinite in act press the point, for example, that in one infinite multitude there will not be more units than pairs, which is repugnant in the very terms; for there are therein infinitely infinite pairs and therefore no fewer pairs than units. Likewise, if infinitely many men are created each with only one ring, which they afterward cast into a heap, each man will later be able to take two rings from the heap, which is likewise contradictory; for in the heap there are pairs of rings infinitely infinite and therefore they cannot be fewer than the men.

9. By the same arguments the infinite of intensity or extension can be attacked, since it is an infinite multitude of degrees or palms, ells, etc., and therefore can be reduced to the infinite of multitude. But in addition, one can argue specially against an infinite of extension. 1º Let God produce a rod extended infinitely, and afterward heap its parts together and arrange them into a globe without penetration or bilocation. I ask whether that globe occupies an infinite space. If you affirm it, then the parts of the rod, without being bilocated, occupy a space infinitely greater than before, since previously they occupied only one infinitely long dimension, whereas now they occupy an infinite space in every direction, as the nature of a globe requires. If you deny it, then those parts previously did not occupy an

infinite space, since they now occupy the same amount, and only a finite one, which certainly, even if disposed lengthwise according to the thickness of the rod, cannot equal an infinite length.

10. 2º One infinite length cannot be less than another on the side on which it is infinite, for example if both are infinite toward the east, as the adversaries seem to suppose and as is clear from what has been said; for whichever were less would have a terminus and end where it began to be exceeded by the other. Yet from another side that it can be less is proved, because God can produce infinitely many ants on an infinite rod, with an interval of one league between each. In that event the ants would occupy less space than the rod, as is evident, and yet they would occupy an infinite space. God afterwards joins and arranges the same ants along the side of the rod, one after another in sequence without intervals. Since they are infinite, they will undoubtedly make an infinite line, which nevertheless will be shorter than the length of the rod and will be surpassed by it by the whole space corresponding to the former intervals, as will be clear to one who considers the matter.

11. 3º Let there be a line beginning here and infinite toward the east. Not all the palms of that line are infinitely distant from this place; some are infinitely distant and some finitely. Therefore, since all are continuous, there is some infinitely distant palm continuous with a finitely distant palm. God therefore sees palm B, infinitely distant from this place, immediately continuous with palm A, finitely distant, and consequently sees the finite distance of palm A made infinite by the addition of one palm, contrary to the saying, "The finite added to the finite does not make the infinite." Again, let a second line be drawn from this same place as from a center, infinite toward the south. Certainly the two lines, eastern and southern, have an infinite distance between them, for they become more distant from each other the farther they recede from the center, and they recede infinitely from it. God therefore sees where, or at what points, one line is infinitely distant from the other. If therefore a transverse line is drawn between those points of the two lines, it will be infinite; and yet it cannot be infinite, since it is closed at both ends by intrinsic termini. For although one or another of the adversaries admits an infinite closed by termini, all the rest reject it as plainly destroying the notion of the infinite, which means the same as interminate.

CHAPTER III.
The Arguments for the Contrary Opinion Are Solved.

1. It is objected 1º: according to St. Thomas, Opusc. 25, "It has not yet been demonstrated that God cannot cause things actually infinite to exist." But that in which no contradiction is demonstrated must be judged possible; therefore. I answer 1º: since after St. Thomas so many wise minds have labored to demonstrate the repugnance of the categorematic infinite, it is not surprising if that repugnance was afterwards demonstrated, or at least nearly demonstrated, which suffices and which St. Thomas does not deny. I answer 2º: that something whose impossibility is not demonstrated ought to be judged possible is true only concerning objects whose quiddity, or constitution of parts or predicates, is conceived with sufficient distinctness, as we noted tr. 1, d. 3, c. 4, n. 15; not, however, when the object treated of is full of darkness and confusion, as the defenders of the infinite in act admit it to be, and offers to those who inspect it scarcely anything but contradiction, or at least a great appearance of contradiction. In such a case the presumption stands for impossibility.

2. It is objected 2º: a syncategorematic infinite is possible both in species of creatures and in individuals of each species, as is clear from the preceding chapter; therefore a categorematic infinite, or infinite in act, is also possible. The consequence is proved 1º: because from syncategorematic infinity it follows that infinitely many men, for example, are possible; therefore, since none of them is repugnant to simultaneous existence with the others, and all are simultaneously contained in the intrinsically infinite Omnipotence of God, infinitely many can exist simultaneously. 2º Because our arguments are likewise pressed against the syncategorematic infinite, especially if it is considered as actually known by God. For concerning the infinite multitude of possible men known by God one can equally ask whether it contains more than is necessary for infinity; whether the superfluous can be distinguished from the necessary; whether it can be mentally divided into several infinites; whether into parts equal to the whole; whether there are as many men in it as hairs, or as many pairs as units; etc. 3º Because, given syncategorematic infinity, there are in fact infinitely many lacks and infinitely many possibilities of creatures, against which our arguments likewise militate.

3. To the objection I deny the consequence, notwithstanding the proofs. To 1º, I distinguish the antecedent: it follows that infinitely many men are possible distributively with respect to each individual, or with respect to

collections of them that are actually finite and can always be increased more and more, in which syncategorematic infinity consists, I grant; collectively, or by a collection or collections actually infinite, I deny the antecedent and the consequence. And I press the point with the divisions of the continuum, on the hypothesis of Aristotle's opinion, which most of the adversaries follow. For infinitely many divisions of the continuum are possible, and none of them is repugnant to being posited simultaneously with the others, and all are simultaneously contained in Omnipotence; therefore all could be posited simultaneously. Scarcely anyone will swallow this consequence, since from it the continuum would be actually divided as far as it is divisible and therefore reduced to indivisibles, which is repugnant in Aristotle's opinion. Accordingly, although no man is repugnant to simultaneous existence with the others in any finite collection, he is nevertheless repugnant to it in an infinite collection, because it is repugnant for him to concur with the others in constituting a chimerical multitude, or one full of contradictions. All are contained in Omnipotence simultaneously with the simultaneity of active power, but not with the simultaneity of passive coexistence. In this way my assent and dissent, or love and hatred, concerning the same object are simultaneously contained in Omnipotence. Nor does it belong to the notion of an infinite power to be able to produce an actually infinite effect, otherwise it could produce an infinite simply in entitative perfection; it belongs to it only to be able to produce finite things without end, that is, not so many that there cannot be more, nor so great and such that there cannot be something greater and better.

4. To proof 2º, which contains all or the principal force of the contrary opinion, I premise that possible creatures, whether in every species or in one, for example the human species, can never all be conceived collectively, so that one collection or one certain multitude constituted by infinite parts is mentally formed from them, without by that very fact being conceived as a chimerical object. For they will be conceived as constituting a whole or some aggregate not greater than its part, one and not one, able and unable to decrease, confounding the necessary with the superfluous, etc. Therefore the same arguments which prove that an infinite collection is repugnant among existing things also prove that it is repugnant among possibles; for they are possible only insofar as they can be reduced to the act of existence. Thus, because it is repugnant for an existing man not to be greater than his part, he cannot be so conceived in the state of possibility. Hence it must be denied that God, knowing possibles as such, knows a collection of all or of infinitely many, because such a collection is not possible. God therefore knows all distributively, insofar as no one of them, nor any number or finite collection

multipliable without end, escapes Him. And this is what is meant when it is said that God knows all, not by collective totality but by distributive totality.

5. I know that this doctrine is strongly attacked by Fr. John Baptist de Benedictis, bk. 3, *Physic.*, q. 5, c. 2, where he contends that an infinite multitude can be taken collectively, or signified by a collective term. 1º Because this proposition, "An infinite multitude of possibles cannot all exist simultaneously," is true according to us, and yet its subject is taken collectively. 2º Because this proposition likewise is true: "Possibles known by God have no terminus," where the subject supposits copulatively, or collectively. 3º Because our mind forms a collection even of finite things that cannot be posited collectively, namely, when it simultaneously conceives durations or parts of time that can be posited only successively, and signifies them by collective names such as "hour, day," etc. Therefore, although infinitely many possibles cannot exist simultaneously, since God nevertheless knows all simultaneously, why will not a collection of all be formed in the Divine mind? 4º Because a multitude to which some determinate being belongs all at once can be taken all at once; but objective or intentional being in the Divine mind belongs all at once to the multitude of all possibles; therefore. Or otherwise: if all possibles, none excepted, now existed *a parte rei*, a categorematic infinite would be given in real being; but all possibles, none excepted, now exist intentionally in the Divine mind; therefore a categorematic infinite is now given in known being. Certainly, if all possibles were posited in reality as they are in the mind of God, they would make an infinite in act. 5º Because it cannot be denied that all possibles are known simultaneously by God; therefore they are simultaneously taken by God, or collectively, for intentional taking is cognition itself. To these can be added 6º, that we commonly and truly say: "The adequate object of the science of simple intelligence contains all possibles," where the term "adequate object" is undoubtedly collective and admits only a copulative descent.

6. Yet these do not press the point. Not 1º, because the subject of that proposition indeed supposits collectively, but for a chimerical object; for such is every object to which the power of existing is truly denied. Not 2º, because that proposition yields this sense: "Possibles known by God can never be designated as so many that more are not known," where the subject supposits distributively for the individual finite collections. Not 3º, because the parts of finite time, whatever be the case as to whether they are signified by properly collective names, can at least all be reduced consecutively to act, each in the composite sense of the pastness or futurity of all the others. But not even in this way can the parts of an infinite collection be reduced to act.

7. Not 4º, because the major premise is true only of a predicate which does not determine the subject to precisely distributive supposition, but leaves it indifferent to collective supposition, such as the denomination "really existing." It is otherwise with a predicate necessarily requiring distribution of the subject. Thus it is truly said, "Every man is one man," because there is none who is not one; but falsely, "The collection of all men is one man." Here you see that the predicate "one man" belongs to the whole multitude, that is, to all men simultaneously with the simultaneity of time or verification, because it is verified at the same time of each, and yet does not belong to the collection. Something similar occurs in the proposition, "Every part composes, or is less than the whole," whose predicate belongs simultaneously to all the parts, yet is not verified of the collection of all. Hence the adverb "simultaneously" does not determine a collection on the side of the subject, but can refer to the simultaneity of distributive verification. Since, therefore, the predicate "known by the Divine intellect," or by another intellect not forming chimeras, determines the multitude of possibles to supposit for the individual finite collections without end, because it belongs to that multitude only insofar as it is truly possible, the whole multitude cannot be taken under that predicate all at once, or collectively. Hence, to the attached syllogism, the premises being granted, I deny the consequence, because under the predicate "existing *a parte rei*" the inference holds from all things taken distributively to the collection, whether finite or infinite. It is otherwise under the predicate "existing intentionally" in the Divine mind. Hence that argument is no more effective than this: if every part of a composite, none excepted, exists really, the collection of them really exists; therefore, if every part, none excepted, composes, the collection composes. But what if all possibles were posited in reality as they are in the Divine mind? I answer: this hypothesis is repugnant in the terms. For if all were posited in reality, they would be posited simultaneously, or collectively, because the character of the predicate requires this; and by that very fact they would no longer be posited as they are in the Divine mind, because, as they are there, each is repugnant to the simultaneous real existence of all. Therefore they would at once be and not be posited as they are in the mind of God, and would at once make and not make an infinite in act.

8. Not 5º, because all possibles are known simultaneously with the simultaneity of cognition, but not with the simultaneity of an object concerning which, as one certain aggregate, God can affirm something non-fictitious. Every cognition is indeed an intentional taking, but not necessarily a collective taking, since often it is distributive, as is clear in these

propositions: "Every man is one," "Every part composes." Finally, not 6º, because although we not infrequently signify all possibles by collective terms, such as by the name "adequate object," "collection of all," and the like, we do so either from poverty of words or to avoid circumlocution. In reality, however, the expression is improper, because the science of simple intelligence does not properly have one adequate object, but more and more inadequate objects without end. Hence, just as several inadequate intrinsic causes do not compose one adequate cause, as we showed tr. 1, where treating of the distinction of the whole from its parts, so must we reason in the present matter. Nor do we remove from grammarians their rights or deprive them of the faculty of using collective names, as the cited author objects. Let them use such names as much as they please, provided philosophers understand that, when they are properly used concerning all possibles, nothing underlies them except a chimerical object.

9. Even the adversaries ought to approve the doctrine given. First in the divisions of the continuum, for if all the divisions that are possible can be gathered into one multitude in the Divine mind, God will behold in that accumulation of divisions the continuum reduced to indivisibles, since it will have been intentionally divided to such an extent that it is no longer divisible. Second, in the durations of an Angel, which, with the adversaries, I now suppose to be modal and essentially successive, proceeding forever. For there will be no future duration which is not followed by another further one, because none is last; therefore there is none which is not known by God under the character of preceding another. If therefore all can be taken copulatively by God, God will be able to say in a collective sense: beyond all the durations there will be a further duration. Yet this is repugnant in the terms. The same parallel can be made in degrees of intensity, especially heterogeneous ones.

10. With these preliminaries, proof 2º of n. 2 is now easily solved. We deny that a syncategorematic infinite truly is, or can be considered, except fictitiously, as one collection, or one multitude of infinite things. For it is nothing but more and more finite units, multitudes, and collections without end, nor is it known otherwise by God. Hence those questions of n. 2, whether the multitude of possible men known by God contains more than is necessary for infinity; whether it can be divided into parts equal to the whole, etc., concern a subject that does not supposit, because no infinite multitude is possible which can be signified collectively. Nor can a comparison, even in the state of possibility, be made except fictitiously between an infinite of men and an infinite of hairs, or even between pairs and units. The only truth is that in any designable multitude of hairy men,

which will always be finite, there are more hairs than men, more units than pairs, and no part equal to the whole.

11. To proof 3º of n. 2: privations are not certain objects constituting a multitude; nor does saying that infinitely many privations are in fact given mean anything other than that infinitely many creatures are not in fact given. But if you wish privation to be an object signifiable in itself, I shall say that a privation of an infinite multitude of creatures is in fact given, but only one and necessary privation, which excludes that whole multitude by one, as it were, impetus as chimerical. Likewise there are in fact privations of syncategorematically infinite possibles, but these cannot be signified collectively, just as neither can the possibles themselves, whose nature they in their own way reflect. The intrinsic or passive possibilities of non-existing things are not in fact given, but would be given only if the things existed. And since things can never exist as actually infinite, it follows that infinitely many possibilities cannot in fact be given. But if you speak of possibilities insofar as they are objects of Divine cognition, you return to proof 2º, which was just solved at length.

DISPUTATION IV.
ON THE COMPOSITION OF THE CONTINUUM.

The continuum is that which has integral parts, that is, parts not regarding one another after the manner of act and potency, joined by a natural nexus. Hence it differs from an artifact, whose parts are joined by an artificial nexus. It also differs from the contiguous, because this does not imply union but merely local immediacy. Hence those things are called "continuous whose extremes are one," that is, naturally united; whereas "contiguous" things are "those whose extremes are together," that is, in immediately adjacent places. Thus drops are parts of a continuum in water; hands, arms, etc., in the human body; fragments or particles into which a board, a straw, or a grain of wheat can be divided. A continuum is composed of those parts into which it is divisible, whether by a created agent or by God. The divisibility of the continuum is a very well-known and common matter. But to know how far division of the parts can proceed, whether always to particles further divisible, or to indivisibles and things altogether simple: this is the work, this the labor, to which no Philosopher is ashamed to confess himself unequal.

For clarity certain points must be premised. 1º One continuum is permanent, namely, that whose parts exist simultaneously, as a straw. Another is successive, namely, that whose parts pass away in an uninterrupted flux, as motion or time. A successive continuum, whose one part immediately perishes as another succeeds it, has continuity only in the sense of uninterrupted succession, for an existing part cannot be physically

united to a non-existing part. A continuum of intensity, namely, when a quality, for example heat, is continuously increased in the same part of the subject and place, can be called successive in becoming and permanent in completed being. 2º The parts of a continuum, even before division, are really and actually distinct from one another, whatever some may seem to protest. For separability, which precedes division, is an evident sign of real distinction; otherwise something could be separated from itself. Who denies that the hand is distinct from the arm, the foot from the leg, a branch from the trunk, even before division? If Aristotle sometimes says that in the continuum there are no parts in act but only in potency, he speaks of parts numerable by us, for until we divide the parts by hand or mind, we cannot count them or compare them with one another, especially in a homogeneous continuum. But that they are really distinct, and distinct before God, so that one really is not another, cannot be denied unless the continuum is said to be simple, devoid of every composition, and therefore indivisible. Nor are indivision and indistinction the same, as is clear in the body and soul of man.

3º The parts of a permanent continuum are not united by themselves; otherwise they could not exist separated. Nor should the Atomists be heard who posit hooked atoms or atoms endowed with certain little loops by which they are fastened to one another without a distinct union. For, to omit the difficulty of conceiving hooks or loops in an altogether indivisible atom, that fastening must necessarily consist in a certain figure or certain local presence, which therefore will itself be a union distinct from the extremes. Others therefore posit as union continuing points, which are received in neither part, yet essentially require both to be most proximate to themselves without penetration. Others acknowledge a purely modal union, either composed of two partial unions, each of which is received in its own part while requiring the presence of the other in an immediately adjacent place; or simple, and received in only one of the parts, namely, in that which God has determined, just as He determines any effects of a secondary cause with respect to the individual. 4º In continuous quantity mathematicians consider, besides the point, which is devoid of dimension, line, surface, and solid according to the three very well-known dimensions of length, breadth, and depth, which they call species of quantity. A line is long, but neither broad nor deep. A surface is long and broad, without depth. A solid is long, broad, and deep, and comes under the name of mathematical body.

CHAPTER I.
Aristotle's Opinion Is Proposed, and It Is Shown How Difficult It Is.

1. The Aristotelian opinion teaches that every continuum is composed of parts divisible without end, so that no part, however small, can be designated even by God which cannot be divided again and again without end, whether by an Angel or by God Himself. Yet this opinion does not admit an infinite in act, or categorematic infinite, of extension or multitude of parts, if one or another author be excepted. Most Aristotelians also admit indivisible points mixed with the parts, which they call "connecting and terminating," because they terminate continuous quantity and connect its parts to one another after the manner of unions. Yet these points, like the possible divisions of the parts, have in this opinion only syncategorematic infinity; for whatever number be designated, they are finite, although more and more can always be designated without end. This opinion possesses great authority, for the Thomists hold it with St. Thomas, the Scotists with Scotus, and most of our authors with Fr. Suárez. Among the moderns the Cartesians subscribe to it with their leader Descartes.

2. The parts into which a continuum can be divided, insofar as concerns the present matter, are of two kinds. Some are called "aliquot" because, taken or repeated a certain number of times, they equal the whole quantity. Such, for example, is a palm in an ell, which repeated four times measures the whole ell. The same parts are called "determinate, equal, and non-communicating," because they have a determinate and equal measure among themselves and one does not communicate with another, that is, participates in nothing of another, but they are adequately distinct from one another, as may be seen in the four palms of an ell. Others are called "proportional," namely, those which are disclosed by new subdivisions of parts made in the same proportion; as if a quantity of two palms be first divided into two palms, then into four half-palms, afterward into eight halves of half-palms, and so onward. For the double proportion is always preserved both in the diminution and in the multiplication of parts. The number of parts resulting from each division and subdivision is called a "series." Hence two palms are the first series, four half-palms the second series, eight halves of half-palms the third series, etc.

3. Here it must be noted that the parts in each series are always equal and non-communicating among themselves, as will be evident on

inspection. They are also aliquot in relation to the whole, even to that first divided. For just as a palm taken twice equals a quantity of two palms, so a half-palm repeated four times equals the same quantity. Therefore when proportional parts are called "unequal and communicating," this is to be understood with respect to parts belonging to preceding or subsequent series. For example, half-palms compared with palms, although both are parts of the quantity of two palms, are unequal and communicating parts, because the half-palms are smaller than the palms and each participates in something of them. Proportional parts are also sometimes called "indeterminate," perhaps because according to Aristotle they can decrease in quantity through new series without any determinable terminus of smallness. They are likewise sometimes called "aliquant," but improperly, for an "aliquant" part is usually called a part that is not aliquot, or not commensurable with the whole, for example a quantity of three feet with respect to one of ten feet. For such a part taken three times does not equal the whole, while taken four times it exceeds it. Whatever be the explanation of the terms, which is usually various and confused in the present matter, the Aristotelians commonly assert that aliquot parts in a continuum are finite, but proportional parts are infinite, or multipliable without end.

4. Yet in truth the Aristotelian opinion is exceedingly difficult. For from it it follows that in a tiny straw, for example, there are actually and categorematically infinite parts. But this is absurd; therefore. The minor premise is commonly granted by Aristotelians and is improperly denied by one or another. First because of the difficulties of the categorematic infinite discussed above. Second because, since the individual parts have their own local extension and one does not penetrate another, if they are actually infinite, how do they not render the straw infinitely extended? An acute author answers that proportional parts, smaller and smaller without end, cannot compose an infinite extension, because just as the multiplication of those parts in number does not increase the extension of the quantity, for no greater extension results from four half-palms than from two palms, although the former are four and the latter two, and the same happens in the other subdivisions which double the number of parts, so neither can their infinity increase the extension. For where more multitude does not make more bulk, neither can an infinite of multitude make an infinite of bulk.

5. Yet this does not solve the difficulty. For although the second series does not increase the extension of the first, nor the third that of the second, and so with the rest, nevertheless, if the series themselves can be multiplied without end, infinite bulk is by that very fact argued to exist in the first series or first divided whole. For how can a finite bulk contain infinitely

many extended and impenetrating little masses, however small, especially since all these are adequately distinct from one another, as the author of the response admits? Furthermore I argue thus: in an Aristotelian continuum there are infinitely many parts, whether they are called proportional or not, some of which, added to others, make a greater extension. Therefore, if the reasoning of the response has any force, they will make an infinite extension. The antecedent is clear. For if from a straw one palm long the first half-palm is separated, and then half of the remainder, this half, when added to the prior half-palm, is indeed smaller than it but nevertheless undoubtedly increases its extension, since it participates in nothing of it but supervenes as adequately distinct. Then, if the remainder of the straw is divided into its halves A and B, half A added to the prior half-palm already increased adds a new increase of extension. The same will happen if the remaining half B is again divided into its halves C and D, and so onward without end. For there can never remain a remainder of the straw so small that it cannot be divided by God into its halves. Therefore there are in the continuum infinitely many halves, certainly non-communicating and adequately distinct, which although decreasing proportionally nevertheless, when added one to another, bring more bulk.

6. Add that in the straw all these proportional halves are posited lengthwise, one after another. If therefore they are actually infinite, an ant traversing the whole straw by continuous motion will successively traverse infinitely many parts. This is altogether repugnant, since according to all it belongs to the concept of the infinite to be successively untraversable. Add further that an entire division of the continuum into infinite parts could be made by God; for an infinite of divided parts is no more repugnant than an infinite of united parts. Gregory of Rimini admitted the consequence, with whom one modern author agrees, and besides them no one that I know. All the others entirely reject it. For either those parts would remain further divisible, or they would not. If the first, the complete division would not have been made, contrary to the supposition. If the second, the continuum would already have been reduced to indivisibles; and therefore it must in fact be composed of them, since it is composed of those things into which it can be resolved. I am not unaware that this argument can be evaded through the darkness of infinity; but we seek light, not obscurity.

7. The major premise of the first syllogism in n. 4 is now easily proved, granted from what was said at the beginning of the disputation that the parts of the continuum are actually distinct from one another before division. For in a straw there is a multitude of parts, a multitude, I say, of distinct things although not of divided things, which cannot be exhausted by any successive

numeration or removal. But such a multitude is infinite, as is clear from the concept of the infinite as distinguished from the finite. Since therefore it is actually existing, it will be infinite in act, or categorematic. The objection is urged 1º: God beholds all the existing and actually distinct parts of the straw before division. Therefore either He sees them to be finite in number or infinite. If the first, the division of the continuum can at length be completed. If the second, nothing is lacking for an infinite in act. It is urged 2º: actually posited parts which, though successively extracted throughout all eternity, cannot be exhausted, are categorematically infinite, provided they are adequately distinct and non-communicating among themselves. What could be more evident? But the parts of the straw are such, as is clear from the example in n. 5. For those proportional halves are first adequately distinct and non-communicating with the preceding parts posited separately, as is manifest. And then, though God successively extract them throughout all eternity, He will never finish, or never arrive at an indivisible remainder incapable of further division into new halves of itself.

8. The same is clear in this sheet of paper, for example. God can successively remove from it, according to its depth, thinner and thinner little sheets, more and more throughout eternity, and place them in a heap, so that He can never arrive at a final surface or indivisible crust. Yet these little sheets, by which this whole world and many another could be covered, which is exceedingly marvelous, although some are smaller or thinner than others, are nevertheless adequately distinct and non-communicating among themselves. From this an infinite extension in a straw one palm long, for example, is also proved. For in the case of n. 5, subsequent proportional halves, added to the first half-palm separately posited, each increase extension, because "the finite," however small, "added to the finite makes something greater." Therefore they also increase extension while united in the straw, since there they are already distinct, extended, and impenetrating. Therefore in the length of the straw there are so many increments of extension that they cannot be exhausted by successive numeration. Is this not an inexhaustible extension?

9. It is urged 3º: the indivisible points joining the parts, which are admitted by most Aristotelians, are not finite in a grain of mustard, for example; for there are as many as there are possible divisions of the parts, and these are not finite. Therefore points of this kind are infinite and indeed infinite in act, since they actually exist. Yet each occupies a distinct place, because none is penetrated by another. Hence in that little grain there will exist infinitely many points occupying infinite place. It is urged 4º, and most strongly, in a successive continuum, or in time. For all the parts of one hour

exist successively and in such a way that it is never true that two parts or particles exist simultaneously, nor that they pass simultaneously. From this it follows 1º that the parts of a past hour are not infinite, because it is repugnant for an infinite to pass successively, which is true even of a syncategorematic infinite. Certainly there will be as many proportional halves in an hour adequately distinct from preceding ones as in a straw one palm long. But from n. 5 these halves are so numerous in the straw that God cannot successively exhaust them even if He separates or destroys another and another throughout all eternity. Since therefore similar halves in an hour successively pass and are destroyed, for two never pass simultaneously, all can never be exhausted or pass, but will make the hour eternal. The same is clearly seen in the instants, or points of time, which continue it, and which must be infinite for the same reason as the points of a permanent continuum. Two or more do not pass simultaneously but each successively; hence all of one hour will never pass. It follows 2º that the parts of an hour are never present nor actually exist, because, since no part is indivisible, every part consists of parts or particles. Hence if any part were present, its particles would be simultaneously present, which is repugnant to a successive continuum. Therefore only indivisible instants are successively present; and in Aristotle's opinion these are not parts of time but quasi-unions of parts. Therefore no other parts besides the instants alone are past or future, because nothing is past except what was present, nor future except what will be present, either by reason of its whole or by reason of parts successively present.

10. Finally, Aristotle's opinion will be false if there is a line consisting merely of points, a surface merely of lines, and a solid merely of surfaces; for then a solid, when analyzed, will ultimately be divided into points. That this is so is proved because, as mathematics demonstrates, a circle touches a straight line only at a point devoid of dimension. Hence if the whole line is moved while touching the circle, the whole will be touched, and always at a point. Therefore it consists only of points. Likewise, a perfectly spherical globe touches a plane only at a point; hence, if rolled on the plane, it will describe a line consisting only of points. Again, the surface of a plane consists merely of lines having no breadth; for if a cylinder is rolled on a plane, it will touch its whole surface, although the plane is never touched by the cylinder except along a line. Finally two planes touch one another according to surfaces without depth, or indivisible as to depth. For if the surfaces, insofar as they touch one another, had depth, they would penetrate one another with respect to the outermost parts, or those prior in the order of place, since otherwise they could not immediately approach one another

with respect to the internal or posterior parts. And since the same reasoning equally applies to the outer surface of each plane with respect to the internal parts of the same body, it follows that the external surface is immediately continuous with another internal surface or breadth, likewise without depth, and this in the same way with another further within, and so onward until the solid is completed. Hence the solid consists merely of surfaces.

CHAPTER II.

Zeno's Opinion Is Proposed, and Its Difficulty Is Explained.

1. Zeno, prince of the Stoics, taught that the continuum is composed solely of indivisibles as its first principles. There are indeed very many of these in any sensible body, as many as none of us could count in a grain of mustard, for example, but nevertheless they are finite before God, or finite in number. From these continued lengthwise results a line; from lines repeated breadthwise a surface; and finally from surfaces multiplied in depth a solid, or body. If one proceeds analytically, the body will be resolved into surfaces, these into lines, and the lines into physically indivisible points. This opinion is embraced by several serious authors, whom Fr. Quirós cites and follows, disp. 67, sect. 2. Fr. Izquierdo also joins them, and is cited and followed by Fr. Peynado, bk. 6, disp. unic., sect. 1 sqq.; Fr. John Ulloa, *Philosoph. natur.*, disp. 2, cap. 7; and several others. The author of *Philosoph. Burgund.*, Maignan, Tosca, and the other modern Atomists also subscribe to it.

2. Yet among these authors some deny and others grant to each point its own extension and figure. Some also acknowledge in each point a natural capacity to occupy, according to different circumstances, now a smaller and now a larger place, or to be replicated now in more and now in fewer points of space. Thus the soul of a man, or even the soul of a lion in the Thomistic opinion, although indivisible, exists naturally now in a smaller and now in a larger space according to the various ages of the body. Points of this kind, because in replication they in a certain way swell, are usually called "swollen, turgid, or inflated." Several also warn that neither they nor Zeno speak of the mathematical divisibility of the continuum nor of points considered mathematically, concerning which discussion will follow, but only of principles physically or really indivisible, whether these are called "minima," "points," or "atoms." Nor for this reason should all these authors be judged Atomists in the sense in which that name commonly signifies those who constitute a substantial composite solely out of atoms of matter variously interwoven. For in the present matter they speak only of integral

composition, which they hold to be made from atoms both of matter and of Peripatetic form.

3. Zeno's opinion is proved by the arguments given above against the Aristotelian opinion. For if it is repugnant for the continuum to be composed of parts divisible without end, or even of infinite points, it remains that it coalesce from finite indivisibles as first components. Add 1º that nature elsewhere everywhere abhors a process without end, especially in causes, both extrinsic and intrinsic, of essential composition, in which according to all a first form and a first subject not composed from another subject must be assigned. Why therefore should one not philosophize in the same way concerning the intrinsic causes of an integral whole, so as likewise to arrive at first components not integrally composite? Add 2º that if no part of matter can be designated by God which does not consist of parts, none will exist which does not consist of a union of parts. But the union of parts of matter is not created but educed, for otherwise it would be annihilated by a secondary cause, to which annihilation, like creation, is repugnant, whenever that cause commonly divides matter; for what is produced by creation ceases by annihilation if it ceases. Therefore matter will not be able to exist without consisting of an educed union; therefore matter will not be created but generated, as is clear from the example of man, who is said simply to be generated although in him only the union is educed. Indeed in man there is less reason for this conclusion, because in him there is a part, namely the soul, capable of existing and being conserved independently of the eduction of the union and of the union itself. But in matter no part can exist, nor according to the Aristotelian opinion even be truly conceived, independently of the union of its parts or particles.

4. Nevertheless there are many exceedingly difficult arguments against Zeno's opinion, the principal of which I shall now indicate. First: continuous extension cannot result merely from indivisibles. For if two touch one another, they touch totally, so that nothing of one is untouched by the other, lest otherwise there be parts in it, one touched and one untouched. But by that very fact they penetrate one another in the same place, as is clear in hands, which, if they touched one another totally both inwardly and outwardly, would by that very fact penetrate one another. But if indivisibles penetrate one another, they do not make extension. It is urged: I ask whether points A and C touch the intermediate point B according to different faces of it, or according to the same face. If the first, then point B has different faces or sides, which does not cohere with indivisibility. Furthermore, it follows that there are six faces in that point, since it can be surrounded by six points according to as many local respects, namely above and below, before and

behind, right and left. Hence point B will have a cubic figure and will be a solid or body. If the second, then the interposition of point B does not impede immediate contact between A and C. For if two things touch a third according to the same indivisible, they cannot fail to be most immediate to one another. Therefore a greater extension does not result from three points than from two, and similarly not from one hundred, because the last will always for the same reason be immediate to the first. Add that those things are immediate and contiguous which are separated by no interval. But points A and C are such, for the mere interposition of point B, being devoid of dimension, causes no interval.

5. Second: from this opinion it follows that the motion of a flying eagle is not swifter than that of a tortoise. For in each instant a tortoise acquires at least one indivisible of space; it cannot acquire less. Therefore in ten instants it traverses ten points of space. But an eagle does not traverse more space in the same time. For in each instant it can acquire only one point of space; otherwise an extreme point of our eagle, for example, would either occupy in the same instant two or more adequate places, or would pass from one place to a distant place without passing through the intermediate. Therefore in ten instants the eagle flies through only ten points of space. Hence it is not swifter than the tortoise, since that is moved more swiftly which in the same time traverses more space. Nor does recourse to little pauses help, as though the motion of the tortoise had more of them than the eagle's and therefore became slower, so that it acquired only three points of space in ten instants while the motion of the eagle acquired eight.

6. For this recourse is attacked 1º because, although it might stand in the motion of living things, not so in the motion of projectiles through an impulse impressed from without. For this impulse, when motion ceases, immediately perishes, as experience teaches. Furthermore, since it is a necessary cause and encounters no greater resistance in one instant than in another, there is no reason why it should not produce motion in each instant for as long as it endures. Hence an iron ball fired from a gun would not move more swiftly than a stone thrown by hand. 2º Because, since the motion of an eagle is incomparably slower than the motion of the Sun, it would be interrupted by almost innumerable little pauses, which therefore would be perceived by the eyes. 3º And most strongly: posit a wheel consisting of two concentric circles, an inner and an outer, having the same center. While the wheel revolves, its outer circle, which is larger, moves more swiftly than the inner and center-nearer circle, since each of its points traverses more space in the same time, namely all that corresponding to the greater circle. Yet the inner and smaller circle does not have more little pauses in its motion, for if

it were at rest for a time while the outer circle moved, the spokes of the wheel, which may be supposed iron or stone and fixed to both circles, would break or bend, which even to the eyes is plainly false.

7. From the same figure of the wheel is taken the third argument. For, given Zeno's opinion, the inner circle will consist of as many points as the outer. For from each point of the outer circle as many straight lines can be drawn to the center, or conversely from the center to each point of the circumference. These lines must pass through the inner circle in such a way that two do not pass through the same point of that circle, but each through its own. Otherwise two straight lines drawn from the circumference to the center would have a common segment, or would coalesce into one before arriving at the center, which is contrary to mathematical demonstrations. Therefore there are as many points in the smaller circle as lines can be drawn from the greater. Hence, if there are as many lines as there are points of the greater, the smaller will consist of as many points as the greater and therefore they will be equal.

8. Fourth: let there be an isosceles triangle, of a quasi-pyramidal figure, whose base consists of six points, while the sides, meeting at the apex, are twice as great, that is, each of twelve points. It follows that the line of the base is equal to the lateral lines, contrary to the supposition. It is proved: from the apex to the base of this figure there can be drawn as many unequal transverse lines as there are points of either lateral side, except the last, which serves as the apex. Therefore ten or eleven can be drawn, if the base also be counted. Then thus: the first transverse line nearest the apex consists of at least two points, the second of three, the third of four, and so onward to the base, which will therefore be found to consist of twelve points, by which it will become equal to either lateral line. Or, if according to the supposition it consists only of six points, the sixth transverse line, and *a fortiori* each of the following ones, will exceed the line of the base, although all are supposed to be smaller than the base and to occupy a narrower space.

9. Fifth: the diagonal line of a square, namely, that which is drawn from one angle of the square to the opposite, is incommensurable with the side, so that a common measure of the two lines, diagonal and lateral, can never be found, as Euclid demonstrates. But if lines consist solely of points, the common measure of both lines will be a point, since it is an aliquot part of each. Furthermore it follows, which is plainly false, that the diagonal is not longer than the side. For if from one side of the square to the opposite as many perpendicular lines are drawn as there are points in each side, the whole diagonal line will be occupied and covered by these lines, yet it will be touched by each only at a single point. Therefore there are no more points in

the diagonal than correspond to the perpendicular lines, and consequently no more than in the side of the square. I omit other arguments, commonly seen in other authors, derived from the same mathematical sources.

CHAPTER III.
Some Solution of the Difficulties Objected Against Zeno's Opinion.

1. No one denies that the arguments proposed in both preceding chapters are difficult to solve. Yet those which militate against Aristotle's opinion are, as it seems to me, much more difficult or obscure to solve. Those which attack Zeno, however, are indeed difficult, but are more clearly disentangled, as I now show. To the first, omitting the response of those who attribute extension and figure to atoms, lest I be detained by the longer examination it requires, the assumption is denied. For just as two rational souls, or two Angels, though entitatively indivisible and indivisibly located, can be in immediate yet distinct places, and thus can touch one another without penetration, taking "contact" analogically, for properly speaking contact is said only of local immediacy of corporeal things, so it can happen with two points of matter. Hence total contact, as explained in the argument, is granted, yet penetration is denied, because this requires identity of place. Nor does the example of the hands avail, for these are divisible according to depth and therefore cannot touch one another with respect to internal parts unless those parts penetrate with the external parts. This reason does not press in the case of indivisibles.

2. When it is asked whether points A and C touch the intermediate B according to different faces of the latter, first the same can be asked of Angels immediately located. Then, a point has no intrinsic faces, since in itself it is devoid of figure; nevertheless it has quasi-extrinsic faces, insofar as it has around itself different real or imaginary places through which it regards different regions of the world, so that through one place it regards the east, through another the west, etc. According to such different faces, which may be considered six or more according as there are comparisons to various parts of the world, point B is touched by A and C, although by each it is touched according to the same intrinsic entity of itself. Yet the extrinsic diversity of faces suffices for the interposition of point B to impede contact and immediacy between A and C and to constitute a greater extension together with them. Nor will it easily be proved that there is immediacy or contiguity between two things when some place truly intervenes, even though indivisible, and which not improperly can be called an interval

although it has no extent of extension. But how, you will say, will extension result from unextended things? In the same way, I say, in which number results from non-numbers, namely, from units, or a heap from non-heaps, a league from non-leagues, an hour from non-hours, etc. For it commonly happens that the name of the whole does not belong to the individual parts. One may object: indivisibility is proper to spiritual beings. I distinguish: indivisibility both formal and radical or primordial, I grant; precisely formal, I subdistinguish: if it is penetrable with another similar thing, I grant; if it excludes penetration, I deny. For a corporeal point to differ from a spiritual thing it suffices that by its own nature it be the root or principle of a divisible thing, and that it be impenetrable with another of the same genus; yet this does not prevent a point of matter from being penetrated by a point of form and by a point of quantity or quality. If you still object with the old saying, "An indivisible added to an indivisible does not make something greater," I shall say that this is true only of sensible greaterness, or greaterness with respect to us.

3. To the second, various solutions are offered. Some inflate the points of the swifter mobile; others make them leap to distant points of place without traversing the intermediate ones; others make them partly leap and partly swell or be replicated. But the readier way seems to be that which has recourse to little pauses, for a mobile is called more lingering insofar as it is moved more slowly. Nor do the objections raised stand in the way. Not 1º, because even an impulse impressed from without has insensible little pauses in which it ceases from motion, and which are connatural and proportionate to it. Hence they do not cause the impulse immediately to perish, as does a sensible pause, because that pause is violent. Thus, according to many, nature abhors a sensible vacuum but not an insensible one, which they call "disseminated." Nor does it matter that the impulse is a necessary cause. For this is the general condition of a necessary cause operating successively, at least while it does not attain the highest degree of forces or intensity naturally possible, that by frequent little pauses it as it were breathes so as to resume its effort. In the same way it is a condition of natural agents not to act at a distance without operation through the medium, or not to overcome a contrary except gradually and with some succession of time, or likewise in many cases not to operate except along a straight line.

4. Not 2º, because the little pauses intermingled with motion are not easily perceived, because motion is more visible, either from the frequent variation of species by which it strikes sight, or at least from comparison of the termini from which and to which; while the little pauses stand to motion almost as privations. For this reason, when we gaze upon a range of

mountains situated far away, we think their summits almost continuous or contiguous, because we do not perceive the intervals, although these are many and perhaps longer than the mountains. You will say: the motion of a ball fired from a cannon is compared with the motion of the fixed stars approximately in the proportion of one to one hundred thousand. Therefore, if an hour is divided into one hundred thousand parts, the ball will move in only one of them and will rest in the others. How therefore is the rest not perceived? Or how does the ball tend straight toward the target when during the rest it ought to descend by force of its native gravity? I answer: granting that proportion, this entire rest, since it is not continuous but interwoven with particles of motion, which are indeed smaller in duration but nevertheless very many and innumerable with respect to us, and which from another side strike the sense more strongly and as it were draw it to themselves, therefore cannot be perceived by sense.

5. Remember that in every minute, indeed in every second, there are very many millions of indivisible instants. Hence one hundred thousand instants do not make a sensible time unless aided by the vehement and frequently repeated sensibility of the object. Remember also that in mixtures of liquids it often happens that a small quantity of one so reveals itself alone to the eyes that it overwhelms a greater quantity of another and does not allow it to be perceived by sight. Thus a small portion of ink makes a much greater quantity of water so black that we perceive nothing there but ink. Thus, as Boyle teaches in *De effluviis*, if one grain of copper is dissolved in spirit of sal ammoniac, a blue liquid will result. If this is poured into water, especially distilled water, it will sensibly tinge blue a quantity of water whose bulk contains more than two hundred thousand parts equal to one grain of copper. If therefore this happens in a permanent mixture, why should not something similar also occur in the successive mixture of motion with little pauses? That the fired ball does not descend during the little pauses arises from the fact that, while these pauses are connatural, they do not remit the intensity of the impulse nor weaken its motive force, but rather assist it after the manner of a condition for continuing the motion. Hence they do not allow gravity meanwhile to prevail.

6. Accordingly the highest velocity of motion naturally possible is that by which the individual points of a mobile uninterruptedly acquire in each instant a new point of place. For they cannot acquire more without bilocation or a leap naturally impossible, although this can happen by Divine power and therefore velocity can miraculously increase without end, as the argument rightly proves. Hence whatever motion does not attain this velocity must pause for some instant or instants, and for more in proportion

as it falls further short of the highest velocity, or is slower. It is also necessary that a motion which is not supremely swift should not be continuous physically, but only sensibly, or with respect to sense, which does not perceive the little pauses by which it is interrupted.

7. Finally, not 3°, because it raises a difficulty almost insoluble in any opinion. Hence it attacks little pauses no more than the other modes of speaking thus far devised. Yet the difficulty seems smaller if, while that wheel revolves, you admit in the smaller circle more little pauses than in the greater, and say that from these pauses there result insensible bendings or undulations in the spokes of the wheel insofar as they extend beyond the smaller circle. They are insensible, I say, from the smallness of each pause and the very brief return to the straight line, and all the less sensible the greater the distance between the two circles. For then the bending or undulation will be distributed through more parts of each spoke and therefore will become less observable. Nor does it stand in the way that the spokes are iron or stone. For no body is so hard that it cannot be insensibly bent or compressed and for a time change figure even without great impulse or blow. This is sufficiently clear from elastic force, by which a hard body, when it strikes another, is made to rebound, as when a steel ball falls upon an anvil, because the parts of each, having been somewhat compressed, immediately restore themselves to their due figure and so cause the reflection of the impacting body. Concerning this elasticity of hard bodies, which is most commonly received among modern physicists, see the author of *Philosoph. Burgund.*, tom. 4, tract. 2, dissert. 2, cap. 5. If therefore percussion or impact insensibly bends the hardest bodies, without nevertheless breaking or discontinuing them, why should motion not effect something similar when it cannot occur uniformly according to all the parts? Nor say that in a continuous body one part cannot be bent without another unless it be divided from it, for we commonly see the contrary in branches of trees when they move while the trunk remains unmoved.

8. If, however, bendings of this kind are displeasing, let it be said that each point of the inner circle corresponds by a straight line not to only one point of the space of the outer circle, but to many, and to proportionally more the greater the outer circle is, as can be gathered from what will be said in the following number. For if straight lines are drawn from the individual points of the outer circle to the center, it is necessary that several of them coalesce and become identified when they arrive at, or before they arrive at, the smaller circle. It thereby happens that the spoke of the wheel, insofar as it reaches the larger circle, can, while the smaller circle pauses, move to new

points of space, namely, to those from which coalescing lines can be drawn, while preserving a straight line and therefore suffering no bending.

9. To the third, the consequence is denied, as also the possibility of so many lines from the central point to the circumference, or conversely, if the discussion concerns physical points and lines adequately distinct from one another. For, since lines so distinct recede more from one another the farther they are extended from the center, it is necessary that, when they arrive at the circumference, they be separated by intervals capable of containing several points, even according to Aristotelians. But if you consider lines beginning from the circumference toward the center, since they must approach one another in proportion as they approach the center, they cannot begin from two immediate or very proximate points without quickly coalescing or becoming identified and therefore having a common segment.

10. It will be otherwise if the discussion concerns mathematical points. For mathematicians are accustomed to consider imaginable points, or points insofar as they fall under imagination; hence mathematics is said to abstract from sensible quantity, not from imaginable quantity. In this way points are conceived with some bulk, although very small and insensible, because nothing wholly devoid of bulk, or indivisible as such, falls under imagination. Therefore a point so taken is physically, that is, in reality and before God, divisible into many Zenonian points. But because mathematicians most often prescind from this divisibility, such a point is therefore called mathematically indivisible, namely, insofar as it falls under such precision. This is so true that astronomers sometimes take the whole globe of the Earth as a mathematical point which is the center of the world, because the magnitude of the Earth compared with the firmament scarcely has bulk. And generally, when geometers describe a circle, they call the point corresponding to the point of the compass the central point, although that point, however sharp, consists of many thousands of physically indivisible points. Therefore, when mathematical points of this kind are under discussion, I grant that as many non-communicating lines can be drawn from all the points of the circumference to the center. For although several must pass through the same point of the inner circle, since that point is in reality a certain bulk pregnant with many physical points, it can give passage to many lines through physical points altogether distinct.

11. Moreover, when mathematicians elsewhere say that they demonstrate quantity to be divisible without end, they likewise are to be understood of quantity insofar as imaginable, or of the progress of imagination in diminishing quantity. Namely, imagination can never conceive a little mass

so small that it is not permissible to imagine another smaller one. Indeed, if they wish to consider a little mass once conceived not as a point prescisively indivisible but as a certain solid or little body, which is at their pleasure, they can divide it by imagination into two halves, and these again into other proportional halves, and so onward. Whether this can physically occur in this way, mathematicians do not care, because they do not treat quantity as physically possible or existing but as objected to the imagination. Nor for this reason should they be thought to feign, although some grant this, because they do not attribute such divisibility to quantity absolutely, but only under the hypothesis that it were such as they themselves imagine it. How little most mathematical arguments assist in investigating the physical and real composition of the continuum is shown by Frs. Izquierdo and Peynado, and also Maignan, tom. 2, *Philos.*, cap. 7; but especially the author of *Philosoph. Burgund.*, tom. 4, tr. 2, dissert. 1, cap. 3, where from Fr. de Chales he notes certain things very consonant with what we have just said. He rightly warns that from mathematical demonstrations both conclusions follow: that a line consists solely of points, since a circle touches a straight line only at a point; and that it consists of parts divisible without end, since certain lines are incommensurable.

12. To the fourth, the hypothesis can be denied, namely, that there can be a pyramid or isosceles triangle whose sides greatly exceed the base if in no part they are parallel but continuously approach each other more and more from the base to the apex. For they will soon coalesce and end in an angle. But if in some parts they are parallel, or equidistant, then the transverse lines in that tract will not be unequal. Add that the sides, by reason of their inclined and sloping position, do not admit as many transverse lines as there are points in each, since the individual lines must touch at least two points of each side, grazing both transversely.

13. To the fifth: the incommensurability of the diagonal line with the side of the square is demonstrated only on the hypothesis of imaginary divisibility discussed in n. 10. If, however, each line is considered physically and absolutely as it is, or can be *a parte rei*, a point will be the common measure of both. Nor is there need to grant that the diagonal is touched by the perpendiculars only at individual points. For by reason of the position by which it gradually declines from one side and inclines toward the other, it is necessarily touched at more than one point by every perpendicular line, as we just said of lines drawn transversely between the sides of the isosceles. Hence the whole can be covered without the alleged absurdity.

14. It should be noted here that in the Council of Constance, sess. 15, among the propositions of Wycliffe, Zeno's opinion is read with this censure:

"It is an error in philosophy." But first, this reading is taken not from the authentic text but from a corrupted codex of a certain private person. Second, that censure is not the Council's but one read before the Council and pronounced by Wycliffe himself, and therefore ought rather to be judged approved by the Council. See Fr. Oviedo, controv. 11, *Physic.*, punct. ult.; and Fr. Ulloa, disp. cit., n. 83.

CHAPTER IV.
What Opinion Seems More Tenable.

1. The solutions given thus far are not without difficulty. But Aristotelians will not give others more easily, since it is incumbent upon them to solve the same arguments, which likewise militate against their opinion, as will be clear by applying each of the objections from chapter 2. First, because there is an equal difficulty in the connecting and terminating points which Aristotelians generally admit. For I ask whether a point of this kind is touched by the parts according to its whole self. If you deny it, then it has parts, one touched and one untouched. If you affirm it, then the parts penetrate with the point. Certainly, when two bodies are contiguous, the terminating points of each touch one another. Therefore either they touch one another totally or they do not. Whatever you say, the argument presses. Indeed, even apart from points, are the extreme parts of two contiguous bodies divisibly deep insofar as they touch one another? If they are not, they will be indivisible, which you utterly deny; and besides, the same difficulty will arise in them as in points. If they are, then insofar as they are touched they have a prior and posterior according to place. Therefore contact extends to what is posterior and more remote from the touching body, which cannot occur unless the touching body penetrates with the first and nearer extremity.

2. Second, because, once two terminating points are designated, one in the eagle and one in the tortoise, it is asked whether each acquires in every instant a new point of place. If you grant it, both move with equal velocity; and since the same reason obtains in the other points, which certainly carry with them all the parts of each body, the motion of the eagle will not be swifter than that of the tortoise. If you deny it, then one or the other rests for some instants and therefore has instantaneous little pauses, and the motion is no longer physically continuous. If you say that neither points of place nor instants of time are immediate but are intermingled with parts, you incur another difficulty. For a divisible part of place never corresponds to one point of the mobile, but always a point of place. Therefore, if points of

place are distant from one another, the point of the mobile will leap from one to another without traversing the intermediate part. If such leaps are once admitted, the Zenonists will easily extricate themselves by them. Furthermore, all Aristotelians admit indivisible instants in time, although not immediate. I therefore ask whether the eagle or tortoise moves in instant A. If it does not move, it rests; and behold as many little pauses as there are instants. If it moves, it acquires only a point of place, for a divisible part, since it requires succession of motion, is not acquired in an instant. Therefore that point already increases the extension of place, otherwise it would not give place to motion.

3. The difficulty concerning the motion of the wheel presses Aristotelians no less. Let a determinate part be designated in each circle, for example one finger A in the inner circle and another finger A in the outer, so that one corresponds to the other by a straight line. Then let there be an iron spoke extending from the center of the wheel to the circumference, which occupies each finger and is firmly attached to each. Then thus: while the wheel is very swiftly revolved, the whole outer finger A moves more swiftly than the whole inner finger A, since it traverses more space in the same time, namely the whole space of the outer circle. Therefore it will either break the spoke or bend it by as much as it exceeds the inner finger in motion, just as if two oxen under the same yoke move unequally, they will break or bend the yoke.

4. Third, because the objection supposes that in each circle there are at least connecting points. But these points, if the objection proves anything, must according to the Aristotelians be as many in the smaller circle as in the greater, since the individual lines must pass through individual points of the smaller circle. Nor say that some lines do not pass through points but through proportional parts of the smaller circle. Against this, the smaller circle can be divided wherever it is touched by each line; but wherever it can be divided, there it has a unitive point, since according to the Aristotelians there are as many connecting points as there are possible divisions. On the other side, that there cannot be as many points in the smaller circle as in the greater, even if infinite points are posited in each, is manifest, especially if the smaller circle is conceived as distant from the center by only one palm while the greater is taken as equal to the circumference of the heavens. For if from the greater circle there is taken a part exactly equaling the whole smaller circle, there will undoubtedly be as many connecting points in that part as in the whole smaller circle. Therefore the innumerable others which remain in the remaining parts of the greater will make a multitude of points much greater at least materially, which suffices to prevent as many

corresponding points from existing in the smaller circle. Thus, according to the defenders of the categorematic infinite, if infinitely many hairy men are produced, there will not be as many men as hairs, although both are infinite.

5. Fourth, because the same absurdity follows with determinate parts. Let the line of the base be six fingers long, but each side twelve fingers. Then let transverse lines be drawn from side to side, distant from one another by one finger. It follows that the line nearest the base consists of eleven fingers, and therefore either the base consists of twelve contrary to the supposition, or it is shorter than the interior transverse line. The consequence is clear, because the sides recede farther from one another the farther they are extended from the apex toward the base. Since therefore this extension is twelve fingers, it will at length produce at the place of the base a separation or distance likewise of twelve fingers. Subtracting the last of these leaves a distance of eleven fingers, which the transverse line nearest the base will occupy. If for this reason you deny that the sides are farther apart the farther they extend, it follows that in some parts they are parallel or equidistant and, insofar as they are such, do not admit unequal transverse lines. Once this is granted, the Zenonists are not pressed at all.

6. Fifth, because it can likewise be adapted to determinate parts. Let each side of a square be six fingers long. Then make six strokes of ink extending from one side to the opposite, each one finger broad, and posit them as contiguous and perpendicular from side to side of the square. These strokes will cover not only both sides of the square but also the whole diagonal line, as may even be seen by the eyes. From this it follows that the whole length of the diagonal line is completed by six fingers, just like the side itself. Hence it will not be longer than the side nor incommensurable with it, because the finger will be the common measure of both.

7. From what has been said it is clear that almost nothing can be objected against Zeno's opinion which does not likewise press the Aristotelian; but conversely Zeno's opinion is not pressed by the difficulties, very many and exceedingly intricate, which spring from the infinity of proportional parts. Furthermore, it is agreed by all that Zeno's opinion is much clearer and easier to understand, and moreover much readier for disentangling other difficulties occurring both in Philosophy and in Theology, for example for explaining the inception and cessation of things, if the successive continuum, or time, does not consist only of indivisibles. Aristotelians do not extricate themselves from difficulties of this kind without the aid of much obscurity if they wish to speak according to their own opinion concerning the continuum. Hence, when they are not pressed on this point, they commonly speak, especially concerning time, almost as if

supposing Zeno's opinion. Since these things are so, right reason seems to dictate that the opinion should be preferred which suffers fewer difficulties and otherwise excels in clarity and is readier for philosophizing in other matters. It should be preferred, I say, timidly and doubtfully, both because of the great authority of the contrary opinion and because we are dealing with a most obscure matter, in which there is no one who does not openly confess the weakness of his own understanding.

And here it is fitting at last to end the second part of the *Cursus Philosophicus*. Its best end will be if the whole be finally referred to the greater glory of God, and to the great honor of the immaculate Virgin Mother of God conceived without stain, of St. Ignatius our First Father, and at once of all the Princes of the Heavenly court. With all my prayers I thus refer the whole.

THE END.

TREATISE.
ON GENERATION AND CORRUPTION.

Besides the eight books of the *Physica*, to whose explanation we devoted the second part of the Philosophical Course, Aristotle treated the matter of natural philosophy more particularly in other books, which we listed in the proemium to the *Physica*. From these, in this third part, we select the books *De generatione et corruptione*, or *De ortu et interitu*, as well as the books *De caelo et mundo*, *De meteoris*, and *De anima*, so that, according to the method customary in the Schools, we may arrange those matters which are more worthy of knowledge and more useful to candidates in Theology. Moreover, these books may rightly be called so many parts of Physical Science, to whose end, or object of attribution, they must be referred. If, however, they are considered in themselves and separately, their object of attribution, according to a suitable distribution, will be natural body as generable, as celestial, as elemental, etc., and as animate. But the other things treated in relation to these ends, insofar as they are in themselves worthy of consideration, will constitute the breadth of the formal object. We therefore undertake first, in this treatise, the books *De ortu et interitu*, whose matter we shall comprise in three Disputations.

DISPUTATION I.
ON GENERATION AND AUGMENTATION.

CHAPTER I.
Substantial Generation in General Is Explained.

1. Generation, taken broadly, is interchangeable with eduction, and is defined as "the production of a thing from a presupposed subject," which definition we sufficiently explained in the *Physica*. It is divided into substantial and accidental generation, according as the term of the production is a substance or an accident. Yet generation properly so called, which is distinguished from alteration and from the production of any accident whatsoever, is substantial generation alone. This is often defined by Aristotle as the change of prime matter from non-form to form, or as the passage of matter from privation to form; as may be seen in 8, *Physica* t. 62, in 1, *De generatione* t. 25, and elsewhere. What such a change or passage imports, both as vitally taken and as terminatively taken, we stated in tr. 1, *Physica* disp. 1, c. 3. There too, c. 5 and sqq., we defended the position that change is not of the concept of generation under every hypothesis.

2. Sometimes, however, Aristotle defines generation by conversion, or by conversive change, which is the passage of matter from form to form, or the transformation of one substance into another. This is the sense of that well-known definition of generation taken from Aristotle, 1, *De generatione* t. 23: "A change of the whole into the whole, with nothing sensible remaining as the same subject"; that is, the transformation of one composite into another

substantially different composite, whereby, namely, the subject which is rendered sensible through accidents, or sensibly distinguished from others of a different species, is no longer the same as before, but a new and different one. For by the name "subject" Aristotle signifies a being in act, namely a physically complete substance; hence, 1, *Physica* t. 7, he defines generation as a change "from non-subject into subject." Therefore by that definition, "A change of the whole, etc.," Aristotle intended to distinguish generation from alteration: insofar as through alteration the whole is indeed sensibly changed, as when wood becomes hot from cold, yet that which underlies the accidents still remains the same; whereas through generation there occurs newness and difference in the subject itself which underlies the sensible character of the accidents. This definition, however, is to be understood of generation known to Aristotle, namely that which proceeds from secondary causes without the intervention of a miracle; for this always imports conversion, since it presupposes matter preceding in time, and consequently another composite which is converted into the newly generated one. Absolutely, however, or for every possible case, substantial generation may be defined as "the production of a substance from a presupposed subject."

Some Points Concerning Conversion.

3. On the occasion of Aristotle's definition just explained, more recent authors are accustomed here to treat conversion. Theologians discuss it at length in the treatise *De Eucharistia*; and we said something about it in the cited disp. 1, *Physica* c. 3. For the present it is enough to note the following. 1º Although the conversion, for example, of wood into fire imports a twofold change, one privative, or involving loss, whereby matter passes from the form of wood into its privation, and the other positive, or acquisitive, whereby matter passes from privation to the form of fire, and consequently has a twofold term from which, positive and negative, and likewise a twofold term to which, one positive and the other negative; nevertheless, in ordinary usage account is taken only of the positive terms. Hence conversion is said absolutely to occur between the positive terms from which and to which. 2º One conversion is "the conversion of a subject from one form into another"; another is "the conversion of one thing into another, or of one thing into another thing." The first denominates only the subject as "converted"; the second denominates the term from which. And there can be a conversion of the subject although there is no conversion of the formal term from which; for when a man dies, matter is converted from the rational soul to the form

of a corpse, yet the soul is not converted into the form of the corpse. Either conversion will be called substantial or accidental according as its primary term to which is substantial or accidental.

4. 3º A substantial conversion of one thing into another, if it so destroys the whole preceding substance that nothing of it remains, is called a total conversion, and by the proper name "transubstantiation," such as occurs in the Eucharist: total, I say, formally; for denominatively total is any conversion that destroys a composite in the being of a whole by destroying the form, or at least the union, as when a man is converted into a corpse. In this sense generation is called "a change of the whole into the whole." But if it destroys only one part of the preceding substance, it will be a partial conversion, though denominatively total in the sense just explained; and this, if it destroys only the form, will be called formal conversion; if only the union, quasi-formal; if the matter or subject, material or subjective. 4º Conversion properly so called necessarily requires two things. One: that the term from which cease in virtue of the production, or of the new function, of the term to which. Hence, if a subject, while it is white, happens to lose sweetness, the sweet will not thereby be converted into the white, nor sweetness into whiteness. Therefore there must be some contrariety or incompatibility between the two terms. The other: that this incompatibility be exercised about some third thing common to both, which is successively united in some way with each term, whether it be the subject of each, or a form, or quasi-form, substantial or accidental. Hence the incompatibility of two bodies with respect to place does not suffice for the conversion of one into the other, because neither is extrinsic place united to the body, nor is it intrinsically common to the two. Thus the unions of each term with the common third thing are also less principal terms from which and to which of conversion, though they are not usually counted separately because they are as it were appendages of the principal terms.

5. Now, if it is asked whether, for true conversion in every case, the cessation of the term from which and a new production of the term to which are necessary, I answer 1º: if the discussion concerns the unions of the two terms, the cessation of one and production of the other are altogether required, as is evident in itself. For wood would not be converted into fire if either, when the form of fire arrived, the form of wood remained united, or, when the latter departed, the fiery form were not united. Hence consequently the cessation and production of each complex or composite resulting from the unions of the terms with the third thing or subject are required, for example the cessation of wood and the production of fire in the being of a whole. I answer 2º: for a true conversion of the subject from one

form into another, the absolute cessation of one form and production of the other are not required. As regards cessation, this is clear in the death of a man, where matter is converted from the rational soul, which certainly does not absolutely cease to exist, to the form of a corpse. As regards production, it is clear in the nutrition of a man, where matter is converted from the form of the food to the rational soul, which certainly is not then first produced. The same would occur if matter passed from the form of wood to a form of fire produced long before and preserved by God outside a subject.

6. I answer 3º: for the conversion of one thing into another there is required the cessation of the term from which, insofar as it is adequately distinct from the subject or common third thing. This is clear both from the meaning of the expression, for one thing to be converted into another is to exchange its own being for the being of another, which is incompatible with retaining its own being, and from examples. For no other reason is the rational soul, at the death of a man, not said to be converted into the form of a corpse; nor is Christ's body said to be converted into a worm if the Eucharistic species breed worms; nor would the Divine personality be said to be converted into a created personality if Christ's humanity, having lost its union with the Word, became a mere man. Whether, however, there is similarly required a new production of the term to which, insofar as it is adequately distinct from the common third thing and from the union, is a more difficult question and should be left to Theologians treating *De Eucharistia*. Meanwhile this at least seems to be asserted: that the term to which must be a thing truly capable of being caused; otherwise, if a humanity passed from sin to union with the Word, sin would be said to be converted into God, which is altogether absurd.

Generation Is an Action Distinct from Alteration.

7. Many Thomists, followed by the Complutensian Carmelites whom they cite, deny that the generation of a substance is an action really distinct from alteration, that is, from the production of the accidents by which matter is ultimately disposed for substantial form. But the contrary opinion is common and most true, and it is held, together with other Thomists, also by the College of St. Thomas at Alcalá. The Excellent Doctor may be seen, d. 18, *Metaphysica* s. 2, where he proves this opinion by the authority of Aristotle and almost demonstrates it by arguments. It is now briefly proved. 1º Because separability is an evident sign of real distinction; but alteration can be separated from generation, at least by divine power, since an ultimate disposition can exist without the generation of the form, and conversely. 2º

Because alteration of itself and primarily regards quality, whereas generation regards substance, which are most distinct terms existing in diverse signs and educed from distinct subjects, namely substantial form from matter alone, and quality from quantity or from the whole composite, as the Thomists maintain. How, then, could this diversity of terms not require distinct actions?

8. 3º An argument against the Thomists themselves: either the discussion concerns the alteration that precedes the instant of generation, or the alteration, that is, production of accidents, posited in that instant. If the first is asserted, that alteration does not coexist with the substantial form, since according to the Thomists all accidents temporally prior perish in the instant of the new generation. Therefore, if that alteration is the action productive of the form, there will exist an action without a term and a term without an action, which is altogether impossible. If the second is asserted, the accidents posited in the instant of generation flow efficiently from the new form according to the Thomists; therefore the form is the efficient cause of their production. But it is not the efficient cause of the production of itself. Therefore the production of the form and the production of such accidents are not the same action. See what was said in tr. 2, *Physica* disp. 6, c. 4. Moreover, the subject of alteration among the Thomists is the whole composite, whereas the subject of generation is matter: both because Aristotle so teaches in 1, *De generatione* t. 24, and because otherwise it would follow that the whole composite is presupposed for its own generation.

9. It is objected 1º: every transient action is motion; but if there is a generation distinct from alteration, it will be an instantaneous action, and therefore will not be motion. I answer: "motion" is also said in a broad sense of instantaneous action, as we noted in tr. 3, *Physica* d. 1, c. 1. But that generation is not successive motion is proved by Aristotle in 5, *Physica* c. 1 and 2; hence the objection is rather turned back against its author. It is objected 2º: generation is sometimes called the term of alteration. Form too is said to result from the ultimate disposition. I answer: if generation is the term of alteration, it will not be alteration, just as form is not generation because it is the term of generation. Moreover, generation is only an extrinsic and mediate term of alteration, insofar as it is the end for which alteration prepares the subject. The resulting of form from the ultimate disposition signifies only the natural connection of the one with the other. It is objected 3º: St. Thomas somewhere teaches that the action of a creature does not immediately attain substance, but only accident. I answer: if this is so understood, every substance could be immediately produced only by God,

nor would a created agent produce the form of fire, for example, any more than the rational soul. Therefore St. Thomas only means that a created cause produces accident before substance, that is, that it precedes generation by alteration. But that there is not one action for both effects, but two, the Holy Doctor teaches most expressly in 3, *Contra Gentiles* c. 69.

On the Term of Generation.

10. The principally intended term of generation, otherwise the term "which," or "as that which," to which the denomination "generated" chiefly belongs, is the whole composite in the being of a whole, as all agree. Concerning the term "by which," or the formal and immediate term, there is some disagreement among authors, but it is almost verbal and of little importance. It is certain that form is immediately produced through the generative action in every composite except man. It is also certain that a generation immediately terminated at form is not required in order that the composite be truly generated in the being of a whole, as may be seen in man, and indeed in any other composite whose form might be divinely created and whose union alone were produced by the generator. Hence, if by the name formal term, or term "by which," there is understood that whose generation is always and in every case required in order that the composite be denominated "generated," the union alone is such a term. Nor is it an obstacle that, on our principles, the union is really indistinct from the eduction of a material form. For we deny that the term "by which" must always be distinguished from the generative action except, at most, by a distinction of reason.

CHAPTER II.
On the Generation of Living Things.

11. The generation of living things, which most properly tends to be meant by the name "generation," taken universally with respect to living things that are said to be generated among creatures, is "the production of a living substance from a presupposed subject"; and thus it also includes the generation of living things from putrefaction. Taken more strictly, however, insofar as it signifies the propagation of living things from their own or univocal principles, it is commonly defined from St. Thomas as "the origin of a living thing from a living thing from a conjoined principle into likeness of nature." Here "origin" signifies a true influx, whether it is causality or otherwise, so as thus to include the generation of the Divine Word from the

Father. This influx, however, must not only be terminated at a living thing, but must also begin from a living principle; and this principle, at the very moment of generation, must be conjoined to the offspring, that is, intrinsic to it, through something proper to itself, namely something which is, or was, proper to the generating principle itself and now remains in the generated thing. Thus in the Divine Son there is the same nature as the Father's; and in human generation there is the matter of the seed and blood of the parents, which is called the offspring's "primigenial matter." This is the sense of the phrase "from a conjoined principle." Because this condition is lacking, birds that hatch chicks from the eggs of another bird are not their parents. Rather, the proper parent is the bird that laid the egg, because it supplies matter proper to itself endowed with seminal virtue; hence the chick reflects the likeness of that bird alone, not of the bird that externally incubates it. Hence also, if at any time human offspring is born from a woman and an incubus demon, the demon will not be its father, but rather the man from whom the demon received the emitted seed; for the demon itself, being in every respect a spiritual substance, is incapable of having seed of its own or of supplying matter proper to itself.

12. Finally, in the definition of the generation of living things there is added, "into likeness of nature"; by this it is signified that, by virtue of the origin and from the innate intention of the generator, the greatest agreement in nature that can exist between distinct *supposita* must of itself be communicated to the offspring. Hence it follows 1º that, since among the Divine Persons an agreement of identity in nature is possible between distinct *supposita*, the Son is therefore generated of the same nature as the Father. It follows 2º that, since among creatures only an agreement of likeness is possible, this by virtue of generation must be the greatest possible, and consequently specific. Because this is lacking, a man is not said to be the parent of fleas or worms generated from his humors. It follows 3º that Eve was not Adam's daughter, although she was formed from his rib with likeness of nature, because she did not have this likeness by virtue of origin or of the manner of proceeding from Adam. For the matter of the rib was formed into a woman not from any natural determination supplied by Adam, but from the mere will of God. It follows 4º that the mare and the ass are parents of a mule, just as the lioness and the leopard are parents of a leopard hybrid, and the same is to be understood of other hybrids. For although the offspring belongs to a certain third species and is not similar to its parents in all respects, this happens accidentally from the mixture of diverse seeds; nevertheless each parent, of itself, by virtue of its own inclination and its own influx, intends an offspring of the same species.

13. By these remarks we have anticipated the objections commonly made against the definition given. There remains, however, a difficult question drawn from the mystery of the Trinity, namely why the procession of the Holy Spirit is not "generation," since the whole definition of generation seems to belong to it. But the answer exceeds the limits of natural philosophy and must therefore be remitted to the Theologians. They divide into various opinions, yet all conclude that the procession of the Holy Spirit is not included under the given definition: either because the Holy Spirit does not have so great an agreement in nature with His principle as is possible among the Divine Persons between distinct *supposita*; or because He does not receive nature formally as such from the primary force of procession; or because He does not proceed as the image of His principle, as does the Son by title of Word; or because He does not receive nature together with the productive power of another Divine *suppositum*; or for other reasons learnedly and acutely devised by the Theologians.

Various Minor Questions Are Deduced.

14. It is asked 1º in what manner each parent concurs in the generation of offspring among created things. It is certain that the father exercises active influx, not indeed immediately upon the animation of the fetus, since at the instant of animation he is separated from it and often already dead, but through the seed, by whose virtue the organization of the embryo is fashioned and the substantial union, or even the soul itself if it is material, as in brutes, is produced. How the virtue of the seed is assisted so as to produce an effect nobler than itself, and how the father is said properly to cause the offspring, although he does not immediately exercise influx nor actually exist, we explained in tr. 2, *Physica* disp. 6, c. 2, from n. 26.

15. It is also certain that the mother concurs passively by supplying blood as the matter of the fetus, and consequently also supplies an active concurrence, at least remote, such as the formation of the blood and its drawing to the place of generation. But that the mother produces true seed by which she actively concurs immediately in organizing and animating the fetus is denied, with Aristotle, by many Philosophers and Theologians. Yet almost all Physicians affirm it with Hippocrates and Galen, and many other grave Theologians and Philosophers support them. Their opinion seems more probable, as resting on anatomical observations, which in this matter ought to be trusted. See the Conimbricenses, in 1, *De generatione* c. 4, q. 27; Fr. Suárez, 2, *De anima* c. 12, and vol. 2, in 3, p. d. 10, s. 2; and Fr. Hurtado, d. 2, *De generatione* s. 5, where he very well solves all the difficulties, especially

those arising from the mystery of the Incarnation. Indeed, with the same Hurtado, Arriaga, Peynado, and others, I regard it as very probable that in viviparous animals the mother's soul exercises an immediate active influx, in the manner of a principal cause, upon the production of the offspring's soul if it is material, or, if the soul is spiritual, as is certainly the case when it is created by God alone, upon the production of the union. For since the female's soul is proximately applied and equal in perfection to the effect that is produced only in its presence, there is no reason to deny it an immediate and principal influx which, for the same reason, is granted to fire and to other univocal causes with respect to their effects. Nor is there reason, in the generation of a lion, for example, to recur to the first cause for the whole principal influx when a univocal secondary cause is present and sufficiently applied, whose disproportion appears from no quarter. This opinion is not rejected by the Excellent Doctor, d. 18, *Metaphysica* s. 2, n. 41.

16. Nevertheless, the female alone without the male will not therefore suffice for generation in those species of animals in which there is a difference of sex. Perpetual experience shows that the concurrence of the male is necessary by the law of nature, as does philosophical doctrine. The claim that Lusitanian or Cappadocian mares, mated with the wind, conceive is poetic and fabulous. Nor, from the fact that a cause equally perfect as, or even more perfect than, the effect is present, does it immediately follow that its power is adequate or that it does not need the companionship of another instrumental cause. This is evident in the intellect, which cannot produce cognition without an impressed species, and in the substance of fire, which according to a probable opinion cannot produce another fire without the assistance of heat. From what has been said one may infer that the mother exercises greater influx upon the offspring than the father, because he exercises influx only through the instrumental virtue of the seed, whereas she does so both through the virtue of the seed and immediately and principally through herself. The soul of the male is nevertheless in itself capable of principal and immediate influx, since it is of the same species as the soul of the female; it is only accidentally impeded by the organization of its own body, a defect abundantly compensated by other advantages enjoyed by the soul in the male body over the female body.

17. However, this opinion does not apply to oviparous things, such as birds, fish, plants, and all stocks whose seeds are kinds of eggs. For in fish and plants the production of the offspring occurs in the absence of the soul that produced the seed or egg; and this also often occurs in birds, whose eggs are frequently warmed and brought to hatching by the heat of the earth, of dung, or of another bird of a different species. Therefore, even when a

bird incubates its own eggs, it seems only to add the fomentation of heat to the seminal virtue which *inesse* in the egg. In oviparous things, therefore, the influx of the principal cause upon the offspring descends wholly from the universal cause, according to what was said in the *Physica* at the place cited above, n. 14.

18. Therefore, generally speaking of living things which have a distinction of sex, it must be said 1º that the seeds of the male and female actively concur both in producing the accidents by which matter is organized and ultimately disposed for the soul of the fetus, an influx which they can exercise as principal causes since they also exercise immediate influx through their own substance, and in animation, that is, in the eduction of the material soul, or in man in the union of the soul with the body. This latter influx, however, is instrumental, because the effect is nobler than the substance of the seeds themselves. Nor should those be heard who think that the rational soul produces its first union with the body. For otherwise the soul would truly be the generator and parent of the man in whom it is included. Moreover, it is natural to every form to exercise its informative power before its active power, as is clear by induction. Therefore, before it produces anything, the soul must be presupposed as actually informing, and consequently as united. It must be said 2º that the same seeds also concur passively by supplying matter. For, as Physicians observe, there are in each seed two parts, one more subtle and the other denser. The latter, together with the maternal blood, is disposed into the matter of the fetus; the former actively disposes and operates and is not corrupted before the animation of the offspring. Hence the seed is not agent and patient according to the same thing, but according to distinct parts.

19. The new Experimental Physicists teach that in every seed there is actually contained the rudiment of the fetus to be generated, but under so tiny a bulk that it almost escapes sense. I mean a rudiment in which, if the seed is that of a plant, the little branches, little trunk, root, with its pores, vessels, and little veins, already lie outlined and fitted to receive and distribute nutritive sap; and similarly, if the seed is that of an animal, there already exists the configuration of a little body with the lineaments of the back, head, etc., and with an exceedingly delicate organic structure capable of receiving alimentary fluid. They further teach that for a fetus to be generated from seed is nothing other than for duly prepared nutritive fluid to enter the pores or little tubes of that rudiment, and thereby enlarge its parts until they grow into a bulk readily sensible; yet this fluid is not attracted by any virtue implanted in the rudiment or seed, but is driven into it by the heat of the maternal womb or of the earth, by the pressure of the

air, and by other causes producing motion in the fluid. Some of them furthermore teach that the formation of this rudiment is from God alone, and that created parents contribute nothing except the gross matter and thereafter fomentation and nutritive fluid. For the structure of a living or animable body is so subtle and artful that it can proceed only from an agent endowed with supreme intelligence and acting from an idea. Indeed, some say that, in the seed of the first individuals of each species, God at the beginning of the World enclosed the seeds of all the others that have existed and will exist in the same species until the end of the World.

20. As regards the rudiment, I indeed do not disagree if the discussion concerns the seeds of plants and oviparous animals; for in these, by means of the microscope, there is detected a certain outline of the fetus to be generated, perhaps set there beforehand because the fetus is to be generated outside the maternal womb and often in the absence of the generator. Hence it was necessary that the matter be marked by that outline lest it be drawn by other causes into a fetus of another species. But in the seeds of viviparous animals I do not believe such a rudiment has been observed; nor does it seem in any way necessary before the matter of the seed begins in the maternal womb to be compacted with blood and disposed toward the structure of the organic little body. But seeds in which such a rudiment is observed do not therefore live when they are separated from the parent plant or bird and are not yet ultimately disposed for generation; for, without food and nutrition, grains of wheat, for example, cannot live for whole years in a granary. And generally, that no separated seed actually lives is the opinion of almost all authors cited by the Conimbricenses, in 1, *De generatione* c. 4, q. 25.

21. Further, that generation consists in nothing else than the introduction of nutritive fluid into the seminal rudiment, and that no action then intervenes besides impulse and local motion, is a doctrine arising from the general principles of Corpuscular Philosophy, which we have sufficiently rejected elsewhere. Therefore it must be maintained that generation dispositively consists in the production of accidents by which matter is organized and disposed through due temperament; formally, however, in the eduction of the union of the soul with the little body, or also in the eduction of the soul itself if it is material. Both actions proceed from the active virtue of the seed, according to what was said in n. 18; not indeed from that virtue alone, nor from it joined only with others acting without their own idea, but together with and principally from the Divine virtue, whose simultaneous concurrence, even if not necessary for another reason, would be abundantly proved from the formation of an organic and animable body. From this

consideration we proved it in tr. 2, *Physica* d. 8, c. 1, n. 5. Yet on that account there is no need to deny true activity and influx, in their own order, to the seed and other secondary causes which do not precontain in themselves an idea of the effect. But that accumulation of seeds at the beginning of the World is a paradox resting on no foundation, and could easily be attacked by positive arguments were it not commonly disregarded.

22. It is asked 2º which parts of the animable little body are first formed in the maternal womb, and at what time the fetus is animated. Some, with Aristotle, maintain that the heart is fashioned first; others, with Galen, the liver; others the brain; others the spine; others all the principal parts simultaneously. The matter is almost wholly conjectural. On it, if desired, see the Conimbricenses, Fr. Suárez, 1, *De anima*, and Fr. Hurtado. As regards animation, it is commonly held that the male is animated on the fortieth day and the female on the eightieth; many, however, assign the thirtieth day to the male and the fortieth to the female; others, a month and a half to both male and female. On this subject the Medical Writers should be consulted, as also on the time of gestation in the womb, a matter partly medical and partly historical. It can also be asked here whence comes the likeness or unlikeness of children to their parents in countenance, color, and formation of members; how great in this respect is the power of the parents' imagination; and in what way imagination exercises influx upon these natural effects. But on this question see the Conimbricenses, in 1, *De generatione* c. 4, q. 30; Fr. Suárez, d. 18, *Metaphysica* s. 8, n. 28; and Fr. Delrio, *Disquisitiones magicae* lib. 1, c. 3, q. 3.

23. It is asked 3º whether the human embryo is first animated by a purely vegetative soul, afterwards by a sensitive soul, and finally by a rational soul. Aristotle seems to affirm this, and St. Thomas and many others affirm it more clearly; not so that three souls persist together, but so that the first perishes at the arrival of the second, and the latter at the arrival of the rational soul. But the contrary opinion, which many also hold, seems sufficiently probable. For what compels us to say that human offspring cannot be generated unless a certain plant is first generated, and afterwards a certain brute, by human parents? Add that by the law of nature no living thing immediately ceases into another living thing, but into a corpse or inanimate body. Nor is it an obstacle that there are in the embryo before the rational soul certain signs of nutrition and sensation, such as palpitation in the half-formed little heart. For palpitation can proceed from spirits, as in the heart of a recently killed man. The growth of the parts, however, is not properly nutrition, but augmentation proceeding from the generative virtue of the seed and mother. Therefore, when the human fetus is said first to live

the life of a plant, then the sensitive life, and afterwards the rational life, the sense can be that the same rational soul first exercises in the body the acts of vegetating, then of sensing, afterwards of reasoning. Although I do not think the rational soul is infused unless the little body is already apt for sensation, at least through touch. That the use of reason is naturally deferred for several years is most certain.

24. It is asked 4º whether the generation of all animals requires seed. It is certain, whatever some have rashly said, that man cannot by any created power be naturally generated without human seed. For the marvelous structure of the human body and the exceedingly exquisite temperament by which it is disposed for the rational soul, both by its nobility, by the testimony of experience, and by the consensus of all prudent men, necessarily demands the formative virtue of human seed. Indeed, it is equally certain that a man cannot without a miracle be begotten outside the maternal womb or without the concurrence of a male and female of his own species. Therefore, if histories sometimes report a man born from intercourse of a man with a brute female, the offspring was substituted and brought from elsewhere by a demon. And if what Saxo Grammaticus relates is true, that Gothic kings derive their origin from a bear and a noble virgin, that conception did not occur without a man's seed brought by a demon, who deceived the virgin under the appearance of a bear. See Fr. Delrio, lib. 2, q. 14.

25. As regards perfect brutes, such as the dog, lion, horse, eagle, etc., it is also almost certain that their generation cannot naturally proceed from anywhere except from their proper parents through the virtue of seed. This is supported both by experience and by the perfection of organization and temperament, which in the judgment of the wise cannot be attributed to other causes. Hence Delrio rightly judges that the dogs found within a stone-quarry when it was first opened, so that they seemed to have been born there, as William of Newburgh relates, had been enclosed there by a demon. But the geese said to be generated in Scotland from fallen tree trunks rotting in the sea either have a very imperfect nature or certainly must be regarded as fabulous. But what of the Phoenix, "which rises neither from conceived offspring nor from seed, but is father and offspring of itself," as the Poets would have it? That the bird itself is not fabulous is proved by the authority of Ancients and Moderns. History likewise records it as having been seen more than once, indeed as having been brought to Rome from Egypt. Yet its generation from its own ashes, as commonly reported, must be counted among fables. For it is not probable that the most beautiful and perfect of all

birds should be begotten from putrefaction like a fly and condemned to sterility like a monster.

26. But concerning imperfect animals, such as flies, worms, locusts, snakes, mice, etc., the common persuasion is that they are indeed often generated from the seed of parents of their own species, but are also often, or more commonly, begotten from putrefying matter pregnant with no seed. The same is commonly thought of plants and herbs. Some, however, think that God at the beginning of the World produced very many seeds, both of animals of this kind and of all herbs and plants, and mingled them with the elements, especially earth and water; and that from these, when they fall into a place suited to the disposition of each, the aforesaid living things are produced. To me, however, a seminal virtue seems necessary for the generation of every living thing, not because I disapprove recourse to universal causes, even to the first cause, for the exercise of principal influx, but because a universal cause presupposes the requirement of a particular cause disposing or determining the matter, and this can be none other than seminal virtue. For the marvelous temperament and organization of every animable body, even of a tiny worm or the vilest herb, cannot be attributed wholly to heat and humidity, which induce putrefaction, as active causes, since they are of a far inferior nature; nor likewise as determining causes, since they are very common qualities and have nothing of themselves whereby so marvelous a structure should be demanded, especially of a determinate species, for example a mouse rather than a lizard or a weasel. The same is to be thought of other particular causes which neither live nor have kinship with living things.

27. Therefore so exquisite a preparation of matter pertains only to seminal virtue, which, though it does not live, is closely akin to the living thing, and is "a peculiar instrumental virtue determining matter, by its proper office, toward the propagation of living things"; and this may serve as a definition of seed in general. Therefore either that opinion must be admitted concerning seeds produced at the beginning of the World, dispersed through the elements, and preserved even beneath the waters of the general Flood, though this does not prevent other seeds from being produced anew by such living things; or it must be said that the many seeds which fall from imperfect animals and also from plants and herbs are dispersed by the wind and carried everywhere, either whole or divided into particles; and that from these, ripened by the putrefaction of other bodies, living things are thereafter generated like the former ones, or even accidentally degenerating. And because the putrefying earth, as in a kind of womb, like a mother warms and ripens those seeds, the living things born

from it are said to be generated from putrefaction or produced by the earth. This question is curiously treated by the author of *Philosophia Burgundica*, vol. 6, tr. 3, diss. 3, c. 1.

28. It is asked 5º what is the cause of the generation of a female rather than a male, and whether the female is intended in itself by nature. On this question see the Conimbricenses, in 1, *De generatione* c. 4, q. 16, ar. 4, where they present the mind of St. Thomas expressed in his own words. It is commonly said that generation of the female sex proceeds either from weakness of the active virtue, from an imperfect disposition of matter, or even from some extrinsic cause, such as southern winds because of their humidity. Some add that there are diverse receptacles in the maternal womb for fetuses of different sex. That the generation of a female is not casual or outside the intention of nature, at least of universal nature, although Aristotle calls the female "an occasioned male," must be regarded as certain: both because the female is absolutely necessary for propagation of the species in men and perfect animals, and because the Author of nature at the beginning of the World formed the first woman in herself. It is nevertheless commonly asserted that a female fetus is outside the innate intention of the particular agent, namely of the male concurring in generation, who of himself intends offspring like himself.

29. But this is not without difficulty, because the particular agent must also of itself innately intend what is necessary for the propagation of the species. Nor does this doctrine seem to have been invented except to preserve Aristotle's statement concerning the "occasioned male," which without offense might instead be referred to his pleasantries. That the male intends offspring like himself is true of the specific likeness of substantial nature, which alone is required by the definition given in n. 11, and which beyond doubt is preserved in female offspring. Therefore it seems truer that the particular agent of itself intends indeterminately some individual of its own species, and is determined to one sex rather than the other by circumstances of the temperament of both generators. Perhaps there can be conceded to the male a greater innate inclination toward male offspring than female, since the latter is accidentally less perfect; yet such that this inclination is inefficacious after the manner of an elicited velleity, in comparison with which female offspring may be said in some way, namely improperly, to be outside the intention of the particular agent. Whether the male sex can naturally be changed into the female or conversely, a question that could also be disputed here, will be taught by Delrio, lib. 2, q. 22, where he collects many matters full of erudition.

30. Lastly it is asked from what causes the generation of monsters proceeds. I answer, from the Conimbricenses, in 2, *Physica* c. 9, q. 5, and Delrio, lib. 2, q. 14, that the causes are many and various. For monsters very frequently proceed from the mixture of animals of diverse species. Sometimes they proceed from the imaginative power of the parents, from the temperament of the heavens and the influx of the stars, from corruption, redundancy, or deficiency of primordial matter, and often also from Divine vengeance. All these causes are confirmed by examples by the most learned authors just praised, who assign still other causes besides. The Conimbricenses treat Pygmies and Giants at the place cited, and Delrio, lib. 2, q. 15. On these also, and on certain other monstrous men who are said to be born somewhere one-footed, one-eyed, or headless, see St. Augustine, lib. 15, *De civitate Dei* c. 2, and lib. 16, c. 8, and Ludovicus Vives on both passages.

CHAPTER III.

On Augmentation, Including the Nutrition of Living Things.

31. Augmentation, which follows and perfects generation, is an action causing a composite already presupposed as generated and existing to grow integrally in substance and quantity; and it is commonly defined as "a movement from lesser to greater," just as the diminution contrary to it is "a movement from greater to lesser." Here "movement" means the same as change, or a mutative action, while "greater" and "lesser" are taken integrally. It must nevertheless be noted that the concept of augmentation is preserved provided a new part is added to a preexisting composite, even though no greater size results here and now because the composite simultaneously loses from elsewhere as much as it newly acquires. Thus it happens in an elderly man who no longer grows by nutrition nor becomes larger; yet his nutrition is truly augmentation, because of itself it tends to the "greater" and would render the man greater unless he were accidentally diminished from elsewhere by loss of preexisting matter. The same is to be judged of diminution in the reverse order. Therefore, in the definitions just given, understand the qualification "of itself."

32. Augmentation and diminution, insofar as they cause the substance of the composite to increase or decrease, are called "substantial"; insofar as they increase or diminish quantity, they are called "accidental," and by the special names "accretion" and "decretion." Substantial augmentation differs from generation in the terms from which and to which. With respect to generative change, those terms are privation absolutely and the being of the thing absolutely; but with respect to augmentation, the term from which is

privation in a qualified respect, or privation of an integral part of a composite presupposed to exist absolutely, while the term to which is an integral part, or the being of the thing in a qualified respect. Similarly, with due proportion, substantial diminution differs from corruption. A threefold species of substantial augmentation is usually distinguished. One is called "simple augmentation," when only the continuative union of a thing with a new part already preexisting elsewhere is produced, as when water is mixed with water. Another is called "aggeneration," when a new part of an inanimate substance is newly produced, as when fire creeps through the matter of wood. The third is called "nutrition," which properly belongs only to living things, when from the matter of food they increase their own substance.

33. Accretion, or augmentation of quantity, adds a new action to substantial augmentation, since the latter tends to substance, the former to accident. There is nevertheless a doubt whether accretion consists solely in the action by which a new quantity is acquired and united with the preexisting quantity. On this it must be said that accretion consists in that action principally and directly, because its principal term is quantity, and therefore accretion is called an absolutely accidental action; yet it connotes, or obliquely imports, substantial augmentation, or the acquisition of new substance, because quantity is not the term of accretion except insofar as it is proper to the growing composite, and it is proper only by reason of the substance in which it *inesse* as in a subject. For a man, for example, to grow in quantity, a mere continuative union of new quantity with the preceding quantity would not suffice unless the substance in which the new quantity is received were at the same time proper to the man; otherwise that quantity would pertain more to another substance than to the man. Therefore the acquisition and appropriation of the subject of the new quantity is involved in the concept of accretion, not directly, for the reason just stated, but obliquely.

34. It is now asked 1º whether augmentation from divisible matter must necessarily occur successively, so that fire, for example, burns the nearer part of the matter earlier in time than the more remote part. If this is denied, the objection is that a part of the matter more remote from the agent cannot be disposed as quickly as a nearer one. If it is affirmed, a very great difficulty arises from the Aristotelian composition of the Continuum: for no part, particle, or surface of the wood can be assigned so close to the fire that it is not divisible into a nearer and a more remote part; and whatever part is designated will be divisible to infinity toward the fire into particles more and more proximate to the fire, nor will the fire be able to reach the extreme

points of the designated particle without successively traversing its infinitely many proportional particles.

35. I say 1º: augmentation of fire, for example, from divisible matter does not of itself and from its intrinsic nature require succession of time. Proof: provided the parts of a palm's breadth of matter are ultimately disposed at instant A, the form of fire will be instantaneously introduced into all at once. For substantial form has no contrary to retard its production except by reason of the prior disposition. Thus, because light has no contrary, the whole air exposed to the Sun is illuminated in an instant. But that the parts of matter are regularly disposed only successively proceeds from resistance of a contrary quality or from defect of the disposing cause, and is accidental or extrinsic to substantial augmentation. Hence, if fire were miraculously penetrated with wood, it would naturally burn all the parts of the wood simultaneously, on the supposition of that miracle. It can also sometimes occur naturally that the ultimate disposition comes simultaneously to a more remote and a nearer part, namely if the more remote part needs less heat in order to catch fire than the nearer, as if the latter is wood and the former sulphur; or also when another equivocal cause is present imparting heat to the more remote part.

36. It is objected: an agent within its proper sphere operates non-uniformly, that is, more quickly and intensely upon the nearer parts of the patient than upon the more remote. I answer: this is true in the production of qualities having contraries. Indeed, in the production of a quality lacking a contrary, it is also true with respect to τὸ "more intensely," but not with respect to τὸ "more quickly"; for light, although it decreases in intensity according to distance, is nevertheless produced with this inequality simultaneously and instantaneously throughout the entire sphere. But substantial form neither has a contrary by reason of itself nor is capable of increase and decrease in intensity. It is again objected: the virtue of fire is occupied in the proximate matter; therefore it cannot in a moment reach the more remote matter, however disposed it may be. I deny the consequence: both because the fire can be greater in bulk than the matter of the patient, and because it is assisted by the new fire produced in the proximate part, which can operate in the first instant of its existence if it finds disposed matter. Nor does fire reach the remote part through local motion, but through a series of newly produced parts of fire, in which succession of time is not of itself necessary, but at most succession of nature or causality.

37. I say 2º: regularly, or for the most part, augmentation from sensibly extended matter occurs successively. This is established by experience; for we see fire creep with some succession through tow or any other fuel, and

likewise vegetative things grow successively. The reason is that parts of matter unequally distant from the agent are for the most part disposed only successively, both because of resistance from a contrary quality, which, while attacked from a distance, is conquered more slowly, and because the dispositive quality is produced more weakly in proportion to sensible distance. I said "for the most part," because sometimes it can happen otherwise, from what was said in n. 35, at least if the matter is small. Certainly, in the first animation of a human fetus the rational soul is simultaneously introduced into all the parts or particles of the natural minimum; for it cannot naturally be introduced into a body smaller than the minimum. Yet the parts of that matter are unequally distant from the agent. Why, then, could something similar not sometimes occur in augmentation?

38. I also said "from sensibly extended matter," because if the bulk of the matter is insensible, although its particles are unequally distant from the agent, nothing prevents augmentation from being regarded as regularly instantaneous in them. Experience does not stand in the way, since it has no place in an insensible little bulk; nor does reason, because a most minute inequality of distance is regarded as nothing and does not suffice for the weakening of the dispositive quality nor give place to greater resistance from the contrary. Thus think many defenders of the Aristotelian Continuum, who, in order to escape the difficulty of n. 34, teach that the succession of augmentation does not occur through proportional parts, which are infinite, but through determinate smallest parts, whose particles are simultaneously disposed in time for the new form and receive it in the same instant. Given the Zenonian composition of the Continuum, which we preferred in the *Physica*, the succession of augmentation through indivisibles can be admitted without inconvenience. But because of what has just been said it is more probable that this succession usually occurs through divisible parts, though individually insensible.

39. It is asked 2º whether augmentation, when it occurs successively, occurs continuously; that is, whether new parts of matter, whether they are smallest divisible parts or points or indivisible surfaces, are acquired immediately one after another without any intervening span of time or instant. I answer 1º that this succession is often continuous as regards sense; for no sensible interruption is noticed while fire creeps through gunpowder, for example. I answer 2º that it is often also really continuous with respect to some parts, while at the same time discrete or interrupted with respect to others. The first is evident because matter placed before fire is often presupposed to be uniformly affected with respect to some parts, and in these there is no reason why the succession of augmentation should be

interrupted. One may object: motion ought to be interrupted for the same reason that local motion which is not maximally swift is interrupted, according to what was said in the *Physica* where we treated the Continuum. But against this: these little pauses, even if admitted in the present matter, need not occur at alternate instants, any more than in local motion, but rather so that the agent rests, for example, at every fifth instant after having continued its operation for four instants. Hence there will already be continuation with respect to some parts, as we presently maintain.

40. That succession is often interrupted with respect to other parts can be proved not only from the parity with local motion as regards little pauses, but also from the fact that parts of matter, for example wood, are often not uniformly affected when applied to fire, but some are colder or moister than others. Hence, after the augmentation of fire has reached part B by continuous succession, it is suspended for a while because some lapse of time is required for part C, which is colder or moister, to be ultimately disposed. From this it frequently happens, besides the general reason taken from local motion, that among augmentations sensibly continuous some are swifter than others; for fire creeps more swiftly through gunpowder than through tow. Yet this inequality can also exist between two augmentations really continuous, namely if each occurs through determinate insensibly extended parts according to n. 38, but one through larger and the other through smaller parts, because the virtue of the agent or aptitude of the subject is unequal. Certainly, among parts so small as to escape sense there can be greater and lesser even on the Zenonian opinion, without reaching atoms.

On the Nutrition of Living Things.

41. The principal species of substantial augmentation is nutrition, which can be defined as "an action tending of itself to the increase of a living substance and arising from its virtue." Of itself it presupposes "intussusception" of new matter, that is, the internal reception of the matter of food, which, attracted by all the parts of the living body and intimately mingled with them, augments all of them uniformly in a non-uniform manner: uniformly, because when the head, for example, grows, the feet grow; non-uniformly, because each member grows according to the proportion due to it, which differs. Nutrition differs from aggeneration, or augmentation of inanimate things: first, because it of itself requires intussusception and mixture of new matter, whereas aggeneration is content with juxtaposition and of itself imports increase of the composite only in

that part to which the new matter is added, as is seen in fire; and if internal suction or mixture sometimes occurs in aggeneration, this is accidental. Chiefly, however, because nutrition states an essential relation to the virtue of the living thing as such, and an essential ordering to its increase; nor can it produce its term taken specifically without simultaneously continuing that term with the preexisting composite, as I shall soon explain.

42. Food, then, having been taken by the mouth in sensitive living things, is conveyed through the esophagus into the stomach or ventricle, and there is first dissolved and cooked into chyle, which is a cream of ashen color. This first digestion proceeds, besides the vital action of the soul, partly from innate heat and partly from a certain dissolving fluid which drips from the membranes of the stomach and is commonly called "acid." To this acid is attributed the dissolution of harder food, as when dogs digest bones and the ostrich, as is reported, digests iron. Then the chyle passes through the pylorus, which is the lower opening of the stomach, into the intestines, where, while the feces tend downward, the purer and more liquid part of the chyle is sucked up by the mesenteric veins, as the ancients thought, and through them carried to the liver. There a second digestion is made into chyme, which is a fluid consisting of four humors, namely yellow bile, black bile, phlegm, and blood. From the liver, which is regarded as the workshop of the blood, the humors superfluous or useless for nutrition having been sent away to their proper receptacles, the now purer blood, though still containing some admixture of the remaining humors, especially phlegm, flows into the vena cava; from there, dispersed through various and manifold little veins into all the members of the body and also attracted through pores, it is finally, by the implanted heat and fluid of the members, ultimately digested and disposed according to the diverse nature of each member, and converted into the substance of the nourished thing.

43. Modern Physicists and Anatomists explain the route of chyle differently: namely that, in passing through the intestines, the purer part of the chyle is sucked up, not by the mesenteric veins, but by the lacteal veins, through which, imbued with a milky color, it is carried to the common receptacle situated near the loins; from there, through the thoracic duct into the subclavian vein, and hence, brought into the vena cava, it reaches the right chamber of the heart, and after being circulated several times with the preexisting blood is converted into blood. Yet there are learned modern authors who judge that the chyle is so divided into two parts that the serous part takes the route just described through the lacteal veins, whereas the sulphurous part tends through the mesenteric veins to the liver, not that it may there be formed into blood, for the moderns appear to acknowledge no

workshop of blood except all the arteries and veins dispersed throughout the body, but that, having deposited the bile, it may be carried purer to the heart. Whatever be the truth of this, it is certain that before the ultimate act of nutrition there precede at least three digestions of the food: in the first chyle is formed; in the second, blood; in the third, the proximate disposition of flesh, bone, nerve, etc., is induced. Once these have been posited, there follows the ultimate act of nutrition, which is the animation of that matter and its union with the composite already living before. In this marvelous work of nature four faculties of the soul labor, whether distinguished entitatively or only by their office, namely "attractive, digestive" or "alterative, retentive, and expulsive." All of these are as ministers of a fifth and nobler faculty, called "nutritive" or "nourishing," to which the ultimate act of nutrition belongs. The name "nutritive faculty," or "vegetative faculty," comprises these five together; and all are also found in plants, which suck up nourishment through roots and have their own receptacles, little veins, and many ducts, through which they digest nourishment and distribute it throughout all the parts of their own body in order to nourish them.

44. It is now asked 1º wherein nutrition properly consists, or what is the ultimate act of nutrition. After the three digestions just explained, while food is converted into the substance of the nourished thing, there is required 1º an action continuatively uniting the new part of matter with the matter of the living body; 2º an action informatively uniting that new matter with the preexisting soul, if the latter is indivisible, as in man, or producing and uniting with that matter a new part of the soul, if the soul is divisible; 3º in man, an action continuatively uniting the new informative union with a similar preexisting union. But if the soul is divisible, as in a snake, there is 3º an action continuatively uniting the new part of the form with the preexisting part, and finally 4º an action continuing the new informative union with the presupposed union. Some deny that a quasi-reflexive union is necessary whereby the new informative union is continued with the preceding union. But without justification; for the informative union, which is indeed indivisible and is extended throughout the whole human body, is continuous and does not have merely contiguous parts, as all presuppose and as the perfect unity of the composite requires. The doubt, therefore, is which of these actions is properly nutrition. Many, whom Fr. Peynado cites and follows here, tr. 2, d. 6, s. 2, presuppose that the three or four actions just enumerated are really distinct from one another, and judge that nutrition immediately and formally consists in the last alone. For, they say, the other actions can exist without the living thing becoming substantially

greater or making a new part of substance proper to itself; but the last action cannot.

45. I say, however, 1º: the action by which, in man, the union of the soul with the matter of the food is produced, and the action by which this new union is continuatively united with the preexisting union, either are not really distinct actions, or at least possess simultaneity of nature and are so connected with one another that neither can exist without the other. And if a living thing consists of a divisible soul, I say the same of actions 2º, 3º, and 4º. As regards man, this is proved because the soul cannot be united with the matter of food without the food thereby being converted into the substance of man; but nutrition formally consists in this conversion, as is certain. Therefore the union of the soul with that matter cannot exist, neither in an instant of time nor in a sign of nature, without nutrition thereby existing; and since nutrition necessarily imports the continuation of that new union with the preexisting union, the new union, either through the same action or through two simultaneous actions, is both produced and continuatively united with the preceding union. The rest is evident, and the major premise is easily proved: because the food is then without doubt converted into another substance, since its matter passes from the form of the food to another form; but the substance into which it is converted through union with the rational soul is the substance of a man, and not of a new man newly generated, as is evident, but of the preexisting man who is now nourished; therefore the conclusion follows. And indeed, if the union of the soul with the matter of the food can exist without being proper to the preexisting man and without augmenting him at all, as the cited authors say, it follows 1º that from that union a new man or new human composite could result which is not a part of the preceding one; hence the production of that union would properly be a new generation. It follows 2º that the rational soul could separately inform matter smaller than the natural minimum, for the matter of food is mingled with the matter of the living thing in exceedingly small parts, smaller than the natural minimum.

46. The assertion is similarly proved as regards a living thing consisting of a divisible form. For a new part of the soul cannot be produced in the matter of the food without both that part and its union thereby becoming proper to the presupposed living thing, and consequently without each being continuatively united with the preexisting soul and union. Otherwise the food would truly be converted into a living substance that would not be the substance of the nourished living thing, but another substance newly generated; and it could happen that a new little soul separately informed matter smaller than the natural minimum. From this the reason is derived

why in some animate beings, for example in a mule, there is an aptitude for nourishing themselves but not for generating: namely because generation is a stronger action, as sufficient to produce a new composite which is not a part of another but exists in itself; whereas nutrition is an action incapable of producing either a soul or a union except under the aspect of an actual part integrating the preceding composite. Therefore the inference from nutritive power to generative power does not hold.

47. I say 2º: nutrition presupposes the continuative union of new matter with the matter of the living thing, but formally consists in the simultaneous production of a new informative union and of another union continuing the former with a similar preexisting union. This applies in man. But in those things which consist of a divisible soul, nutrition additionally includes the simultaneous production of a new part of the soul together with its continuative union to the preexisting soul. The reason for the assertion is taken from what was just said: once these terms are posited, the conversion of the food into the proper substance of the nourished thing is fully understood; if any one of them is removed or prescinded from, such conversion is not understood. Moreover, these terms must be produced simultaneously by nature, because one cannot precede another. That the continuative union does not precede the new extreme is evident; and that neither the new informative union nor the new part of the soul, where such exists, precedes its continuative union is clear from what has been said, because neither is produced except under the aspect of an actual part integrating the preexisting composite; and it is constituted as such a part through the continuative union. Therefore the production of these terms either is really one action, or at least imports actions mutually connected and simultaneous. It is otherwise with the continuative union of the new matter with the preexisting matter, because that union can exist without conversion of the food into the substance of the nourished thing. For we commonly see two composites of diverse species continuatively united with respect to matter.

48. From what has been said one may infer why nutrition is called an immanent and vital action although it is wholly received in the new matter: namely because it exercises and of itself causes the new matter to be proper to that *suppositum* from which the action itself arises. Hence there is no instant or sign in which it exists without truly remaining within the *suppositum* from which it proceeds. It is not so in the aggeneration of fire, for example; for new fire is not produced under the aspect of an actual part integrating the preceding fire, nor is its production augmentation in itself, but accidentally, because it happens to find continuous matter. For in itself

the same production could exist even if the new matter were merely contiguous, and then there would be not aggeneration but a new generation. Hence in itself it is a transient action, although accidentally it is in some manner rendered immanent. When, however, the continuative union of the new form and fiery union with the preceding one is produced, perhaps that production is not from an intrinsic principle of the fire but from other extrinsic causes.

49. It is asked 2º what the causes of nutrition are. I answer: the principal cause or virtue is the substance of the soul, which must immediately exercise influx in every vital act, although assisted by accidental powers, as we shall say in the *Animastica*. Nor does it exercise influx only in the ultimate act of nutrition, but also in the preceding acts by which the food is variously digested, circulated, and distributed. For acids or other ferments, lymph, heat, spirits, inspired air, or subtle matter cannot suffice for so varied and marvelous a work, as the modern Corpuscular Physicists maintain, who seem to attribute no influx at all in the whole work of nutrition to the rational soul. I grant, however, that for such a work the soul altogether requires bodily workshops and mechanical means, namely ventricles, veins, arteries, glands, pores, etc.; likewise various fluids and a suitable temperament of qualities, especially heat, as instrumental active causes both for preparing the matter of the food and for the ultimate act of nutrition, since accidents can immediately exercise influx upon a substantial effect, as we maintained in the *Physica*.

50. It is asked 3º whether nutrition from divisible matter occurs successively and continuously. I answer: the same doctrine must here be applied which we gave above for augmentation generally, from n. 35 and from n. 39. But it is further asked 4º whether nutrition, whatever be the case regarding tiny pauses, ought to be morally continuous, or not notably interrupted, throughout the whole time of life. It must be presupposed that the necessity of nutrition arises not only from the innate appetite to grow to due magnitude, but also from the loss of particles of preexisting matter, which is almost continuously dissolved and passes off into vapors or exhalations through transpiration, both by the force of internal heat and the acrimony of acids, and by the force of extrinsic agents attacking and corrupting the temperament due to the living thing. This being posited, the common opinion is that nutrition must be so necessarily continued throughout the whole time of life that it cannot be interrupted, at least notably, without danger to life. Hence Aristotle said that the nutritive faculty does not sleep, but that its sleep is death. The reason is that, since there is an almost continuous dissolution of matter and alteration of temperament

in the remaining matter of the living thing, unless these losses are repaired by almost continuous nutrition, death will soon threaten. Moreover, the acrimony of the acid and the heat of the stomach, unless occupied in digesting food, will rage against the parts of the living thing even to its destruction. Radical moisture also will soon be consumed by internal heat.

51. Nor do the examples of brutes and certain men who lived long without food stand in the way, concerning which see the learned discussion of the Conimbricenses, 1, *De generatione* c. 5, q. 10, and Delrio, lib. 2, *Disquisitiones* q. 21. For those animals, whose glutinous matter does not so easily undergo dissolution, indeed live or have lived without a new taking of external food, but not without all nourishment by which they were nourished to some extent; for during that time they were nourished by an abundance of phlegm or some other dense and congealed humor previously accumulated, which, resisting heat by its coldness and concretion, is digested more slowly. Similarly, during the eight or ten days for which a man can commonly endure fasting while alive, as is believed, the heat of the stomach is largely occupied in consuming inanimate humors remaining there and does not turn its whole force upon the animated parts. But when it does turn upon them, and thus attempts the destruction of that composite whose advantage it ought to serve, and consequently also causes its own destruction, all this occurs accidentally from defect of food, whose digestion it ought of itself to pursue according to the institution of nature.

52. It must nevertheless be noted that, among animated parts, the heat of one does not act upon the moisture of another, much less upon the moisture of the same part, unless in one or the other there is diminished or increased from elsewhere something below or above the naturally due temperament. The heat, therefore, which consumes radical moisture, by which name is meant both the due humidity inhering in animated parts and that which *inesse* in the blood and nutritive fluid, is that which resides in inanimate spirits, especially nitrous or sulphurous ones, which wander throughout the whole body and partly result from the digestion of food, partly are drawn in through respiration or enter through the pores. To this is added heat proceeding from the Sun, wine, and other causes, which often inflames the liver and other viscera or humors beyond measure, whence fevers arise. Hence the objections some make against the action of heat upon moisture are easily solved. But one will still object that experience shows those who die of hunger or starvation usually to abound in much blood; therefore death does not arise from lack of food to be converted by nutrition into the substance of the nourished thing. It is answered that this blood is no longer fit for nutrition: either because, as some maintain, not

every part of the blood nourishes, but only the serous part similar to egg white, which has already been consumed in those killed by hunger; or because all that blood has become drier and more burnt than to be capable of serving as nourishment.

53. It is asked 5º whether man ought to die from nutrition itself even if there were no other cause of death. It is certain that death very often proceeds from the taking of food, either because the food is harmful or because the taking is immoderate. It is also certain from the principle, "An agent, by acting, is acted upon in return," that in altering food, even the most suitable, man suffers something in return and consequently loses something of his native temperament and vigor, which he cannot recover through the ultimate conversion of the food, because the thing converted cannot be more perfect than that which converts it. Hence, if the work of nutrition is considered precisely, even prescinding from the law of God by which it is established that all men die once, it seems certain that man must by it be so weakened in the course of time that at last he dies. Thus it often happens that men observing the best regimen and afflicted by no other disease gradually grow old and wrinkled and finally fail from mere old age.

54. One may object: since foods are various, a man can restore through one what he has lost from his due temperament through another, for example restore by what is hot what he has lost through what is cold. And although in fact this never happens constantly in a long-lived man, either because of the unhealthiness of foods now available or because of defect of proportion in quantity, it nevertheless is not repugnant in the nature of the thing. Hence the common opinion, according to the Excellent Doctor, lib. 3, *De opere sex dierum* c. 15, is that the fruit of the tree of life planted in Paradise had this natural power, that it renewed man's youth and perpetually warded off the death that would come from old age. I answer: this restoration cannot be effected by food as food, that is, as apt to be digested and converted into the substance of the nourished thing; otherwise the food would be corrupted by that heat which it itself had produced or restored in the living thing. Therefore it could be effected only by food insofar as it is a medicine or drug, that is, insofar as it has some part unlike the others which possesses the power of restoring man's temperament and is not converted into his substance. Such a part existed in the fruit of the Tree of Life, and now nowhere exists with so perfect a restorative power.

On the Term of Magnitude and Smallness.

55. Finally, it is asked whether nature has fixed for substances a certain term of growing and decreasing which they can never transgress. I answer 1º, with the common opinion: living things have a determinate term of magnitude beyond which they cannot naturally grow, and likewise a determinate term of smallness below which they cannot naturally be preserved. The term of magnitude is established by experience not only in individuals, of which some are larger than others because of peculiar temperament, but also in species. For no giant of one league, for example, has ever been seen. There is also a reason from the necessity of nutrition, because food could not be suitably distributed through the parts of a body extending all the way to the Moon. The term of smallness is evident because a soul cannot naturally be united except with an organic body, which certainly requires extension of divisible matter and cannot be preserved in a point. One may object: a man attaining any assignable magnitude could still be augmented by swelling of the head or by dropsy. He could indeed, but not vitally; for that morbid humor would not be animated nor acquired through nutrition.

56. It must here be noted for the understanding of the terms that the highest magnitude, or highest smallness, of each species is called the intrinsic term and the "greatest that is" or "least that is," otherwise the "natural minimum," into which the soul can first be introduced; while the least among those magnitudes, or greatest among those smallnesses, which are naturally impossible for the living thing, is called the extrinsic term and the "least that is not" or "greatest that is not." It must also be noted that men commonly do not grow beyond the twenty-fifth year of age, because the bones, having become too hardened, cannot be augmented. They nevertheless grow fat, or increase the bulk of flesh. Old men, however, are weakened and become wrinkled because, through defect of innate heat and moisture, they do not digest foods well nor convert as much into themselves as they daily lose of their own matter. Their nutrition is nevertheless truly augmentation, because of what was said above in n. 31.

57. I answer 2º: most inanimate things do not of themselves have an impassable term of magnitude, nor likewise of smallness down to an atom or point. This too is the common opinion against many Thomists. For, first, absolutely no reason appears why fire, for example, merely because it has grown excessively large, should no longer be able to burn tow placed before

it and be continuatively united with the new flame. Then, since fire does not require heterogeneous dispositions, or dispositions incompatible within the same part of matter, there is no reason why its form cannot exist in any particle or atom of matter whatsoever. Hence we commonly see many bodies reduced to the finest powder without therefore losing their previous substantial form. I said "of themselves," because accidentally and from without, or by contrary agents, inanimate things are often prevented either from growing excessively or from being long preserved in very small matter, in which they are more easily overcome, as is evident in a spark of fire; which nevertheless, if placed in a vacuum or in a place free from attack, would not be extinguished even if it were a point. I also said "most inanimate things," because there are some which in themselves depend upon or result from living things, and thence have limitation of magnitude, such as corpses, pearls generated in oysters, birds' eggs, and similar things.

58. But on behalf of the Thomists it is objected 1º: every form is determined to a certain perfection; therefore also to a certain quantity. 2º A body cannot act or undergo action in every minimum quantity; therefore neither can it exist, because being is for the sake of operation. But these arguments have no force. To 1º, I distinguish the antecedent: to a certain intensive perfection, or with respect to species, I grant; to an extensive perfection, or with respect to the number of parts by which it may be more and more integrated, I deny the antecedent and the consequence. To 2º, I deny the antecedent, speaking of the thing in itself; for why could a point of fire, free from a stronger contrary, not burn an opposed point of gunpowder?

CHAPTER IV.
On Rarity and Density.

59. Since rarity and density present a certain appearance of augmentation and diminution, we attach their explanation here. "Rare" is defined from Aristotle's doctrine, 4, *Physica* t. 84, as "that which has little matter under large dimensions." Conversely, "dense" is defined as "that which has much matter under small dimensions." Here "little" and "much," "large" and "small," are taken relatively, insofar as in a rare body there is little matter when compared with the matter of other bodies having equal dimension, whereas in a dense body there is much matter when comparison is made with others equal in dimension. Thus air is rare because a palm's breadth of air, compared with a palm's breadth of earth, has only a tenth part of the matter; but earth is dense because under a palm's breadth of dimension the matter of earth exceeds tenfold the matter of a palm's

breadth of air. That one body is denser or rarer than another we infer from various accidents, chiefly from weight. Thus we call iron denser than wood because in equal bulk it has greater weight. Comparison can also be made of the same body with itself. For wax, for example, when rarefied, acquires an extension "large" with respect to the extension that could otherwise suffice for the same wax; but when condensed it is reduced to a "small" extension with respect to that which would otherwise correspond to the same wax.

60. In the present matter the principal question concerns rarity and density which the same uncorrupted body can alternately undergo when, according to variation of temperament, it now occupies a greater and now a lesser space. Here it must be noted that the form, or quasi-form, which in first act determines a body to greater or lesser extension is said by many to be a certain quality having no other function and is called by the special name "rarity" or "density." The more common opinion, however, does not acknowledge such a quality, but holds that a certain temperament of common qualities suffices for that function, so that heat prevails in rarefying and cold in condensing, from which we commonly experience these effects to proceed unless they are impeded by excessive hardness and dryness of the body. Whether rarity, and the same applies to density, consists in such a temperament or rather in location, or local extension, is a question of name. It is commonly and rightly said that radical rarity, or rarity in first act, consists in temperament, while formal rarity, or rarity in second act, consists in a more extended location insofar as it naturally arises from such a temperament. Hence Christ's body in the Eucharist has radical rarity, not formal rarity.

61. But it is exceedingly difficult to explain how, in the same body, a greater and lesser extension can occur without penetration or bilocation of the parts or of the whole body. For dense wax, for example, exists in a palm-sized space as in a place adequate to it. Therefore, when rarefied it occupies a two-palm space, it occupies a place twice as great as its adequate place, which is to be bilocated. Or, if the two-palm space is only one adequate place, the palm-sized space will be adequate to only half the wax. Therefore, when in condensation the wax is reduced to the palm-sized space, one half of it will necessarily be penetrated with the other. This difficulty has divided Philosophers into various opinions, the principal ones of which I shall now set forth and in some manner weigh.

§ 1. First and Second Opinions.

62. The first opinion is, or was, for it scarcely has a patron today, that a body is rarefied through the arrival of new quantity, and condensed through loss of that same quantity. But it is rejected because, if it speaks of the arrival and loss of the whole quantity, it asserts a paradox, since quantity has no contrary and it is not probable that one quantity is corrupted by another of the same species. But if it speaks of a new part of quantity, against it stands 1º that this part too cannot be corrupted in condensation without a contrary; 2º that rarefaction is confused with accretion; 3º that, if no new part of matter is added, as this opinion presupposes, the new part of quantity will either be received in no subject, or, if received in matter, will be penetrated with the preexisting quantity, which is presupposed to inform the whole matter of that body; or, if the preceding quantity has left some part of the matter, it will change its subject and, moreover, with respect to some of its parts will be penetrated, as contracted into a lesser amount of matter. Nor is St. Thomas an obstacle, in 4, *Physica* lect. 14, saying that rarefaction occurs through the same matter receiving "now a greater and now a lesser quantity." For he speaks of greatness not entitative but purely extensive, and therefore adds: "To be rarefied is nothing other than for matter to receive greater dimensions."

63. The second opinion presupposes the Aristotelian composition of the continuum and explains rarity through the arrival of a new quality which determines a body and its quantity to occupy a greater space than before. This is explained in two ways. 1º So that the parts of the quantity are more unfolded and more distant from one another, yet the individual parts do not have a greater presence than before. But this is easily attacked: both because that unfolding of parts and greater distance is inexplicable if it imports neither removal of penetration, discontinuation, dilation of pores with voids or adventitious corpuscles, nor finally replication or greater presence of the individual parts. Yet according to its authors that unfolding imports none of these. Also because the extension of a body to a greater space is inconceivable if no part of it acquires greater presence. And also because either the discussion concerns proportional parts or aliquot parts. If the first, it is evident that the individual parts of rarefied wax become extensively, or with respect to presence, greater, namely the halves, fourths, eighths, etc.; for if wax previously one palm in size now occupies a two-palm space, its half becomes one palm although previously it was half a palm, and

the remaining parts increase in the same proportion. If the second, aliquot parts, for example palms or fingers, are not unfolded, nor are they the same or the same number as before, but are numerically multiplied; for wax which previously had four fingers in extension now has eight.

64. 2º It is explained through the indifference of quantity to various extensions, both of the parts of the body and of the whole. Quantity, considered in itself, requires local extension, but not this rather than that, not greater rather than lesser; instead, according to variation of the qualities by which it is affected, it now grounds a greater and now a lesser extension. Hence in itself it is not "so great" in second act, for example a palm rather than a finger, but is rendered "so great" through location or presence, in which actual extension consists; nor likewise is it determinately "so great" in first act, or in requirement, except insofar as it is conjoined with a certain quality or temperament of rarity or density. Hence, when it occupies a space twice as great, it is not bilocated, because it is not in more than one adequate place; for the preceding space, which was adequate to quantity otherwise affected, is no longer adequate to the same quantity as qualified here and now. Nor is it true that the parts are penetrated in condensation, because, since the parts are infinite both in quantity and in any space, a part of quantity will never be designated to which a distinct part of space does not correspond. This explanation seems more common among Aristotelians and sufficiently according to the mind of Aristotle and St. Thomas. The Excellent Doctor indicates it, d. 40, *Metaphysica* s. 4, n. 29, and s. 9, n. 12; the Conimbricenses also indicate it, 1, *De generatione* c. 5, q. 17, ar. 6, at the end; but Fr. John Baptist de Benedictis above all explains and defends it, vol. 3, l. 2, q. 1, c. 4. The same seems common among the Thomists, who nevertheless are accustomed to add certain modes in rarefying quantity.

65. Nevertheless, this explanation is difficult. 1º Because there will be no determinate quantity which cannot naturally be more and more extended or contracted without end. Hence it could naturally happen that the quantity of the whole World is contracted into the place of one grain of wheat, and the matter of one little grain occupies the place of the whole World. One may object: every finite quantity has determinate limits both of greatest rarity and greatest density. But I ask whether the matter of a grain and the matter of a mountain have the same limits. If they do, then the matter or quantity of the grain could naturally equal the bulk of the mountain or of the whole World, which I think no one will grant. If they do not, why not? Because, it is said, the quantity of the grain is lesser in itself and with respect to itself. But wherein consists this lesser character in itself and with respect to itself? In aptitude for a smaller place? But the reason for this aptitude is precisely

what is being asked. In having fewer parts of its own entity? But against this it stands that proportional parts are as infinite in a grain of wheat as in the whole Caucasus mountain, while there are no determinate aliquot parts, for example fingers, palms, cubits, leagues, by reason of quantity alone; rather it depends upon a certain presence and local extension whether there are more or fewer of them. Similarly, according to the cited authors, it depends upon that same extension whether proportional parts, for example the half, third, or fourth, are greater or lesser.

66. One may again object: rarity cannot naturally be so great in the matter of a grain that it requires the space of a mountain. But against this: the same qualification, whether rarity or not, which exists in all the matter of a mountain could naturally exist in the matter of a grain; therefore it would naturally cause the latter to be extended to the space of the mountain. The antecedent is proved: first, the qualification can plainly be the same with respect to intensity. Then, with respect to entitative extension in the multitude of parts of matter, because, as we have just shown, in the matter of a grain considered in itself there are neither fewer nor smaller parts than in the matter of a mountain. Why, then, would the same local extension not naturally follow from it? Hence is rejected what some say, namely that in rarefaction quantity becomes greater in itself, not through addition of part to part, but through greater radication and actualization of the subject, which adds only new modes, no differently from what Thomists hold regarding the intensity of qualities. It is rejected, I say, because there is no reason why the actualization or radication of the quantity of a little grain could not naturally be so great as to suffice for the space of the whole World, since the multitude of proportional parts is the same in the little grain and in the World; whereas the multitude of aliquot parts and the magnitude of proportional parts in each case await local extension or the radication itself.

67. 2º The aforesaid explanation is difficult because from it follows that there is no more matter and quantity in a pound of gold than in an ounce, which is evidently false. The consequence is proved: consider the quantities of a pound and an ounce of gold prior to every quality. In one you will find as many proportional parts as in the other, namely as many halves, thirds, fourths, etc. But in neither will you find any determinate aliquot parts, nor in either greater proportional parts; for that the half of a pound, for example, is greater than the half of an ounce has no foundation prior to extension and rarity. Therefore from no quarter will you find more quantity in a pound than in an ounce. Nor recur to inequality of weight; for concerning weight or gravity I shall similarly ask why more is present in the matter of a pound than in that of an ounce. 3º It is difficult because length, breadth, and depth

are species of quantity according to the opinion of all Philosophers and Schools cited by Fr. Suárez, d. 40, *Metaphysica* s. 6, n. 5; but these species become greater in a rarefied body. Therefore in the same body not only presence but quantity itself, taken specifically, becomes greater. Yet it does not become greater through new radication, as in n. 66, both because of what will be said in its proper place against Thomistic intensification, and because quantity, according to the common opinion, does not admit more and less according to intensity. Therefore it becomes greater through addition of new parts. 4º Because local extension proceeds from quantity as a secondary formal effect; therefore it cannot naturally become greater unless quantity and its primary formal effect become greater. To this also pertains the maxim, "as absolute is to absolute, so greater is to greater."

§ 2. Third Opinion.

68. The third opinion, illustrated by Frs. Alphonsus, Carlotus, Izquierdo, and others, whom Fr. Peynado cites and follows, tr. 2, *De generatione* d. 7, s. 2, presupposes the composition of the continuum from points finite in number and physically indivisible, and attributes to each point of matter and quantity a natural aptitude for occupying an extended space, now greater and now lesser, according to the variation of the temperament of qualities. Hence these points are called "inflated" or "swollen," just as the human or even leonine soul, according to the Thomists, although indivisible, is located in an extended space and in a greater or lesser one according to the various ages of the body. Therefore, when the points of the body are determined by temperament to a greater location, the body is rarefied; when to a lesser, the body is condensed, without any addition or subtraction of quantity. This opinion is extremely expeditious as regards the present matter and can otherwise easily be defended, especially if the following are noted.

69. 1º That a corporeal thing entitatively indivisible can admit local extension and figure is granted by all modern Atomists, nor can it be denied by the Thomists, who assert that the soul of a perfect brute, for example a lion, is indivisible and nevertheless immediately united to extended and figured quantity. Hence these authors are bound to deny what is commonly objected here, namely that a corporeal thing cannot naturally be whole in the whole divisible space and whole in each part of the space. They are bound, I say, to deny this of an indivisible corporeal thing, although it is true of a divisible one, because otherwise there would be penetration of parts. 2º That the extension of such a thing can naturally vary and be now greater, now lesser, without bilocation properly so called, must be admitted by the

Thomists regarding a lion's soul and also by all the authors of the common opinion explained in n. 64. For indifference to unequal extensions is no more difficult in a point than in a divisible body, which likewise, when rarefied, could be called "inflated" or "swelling," nor does bilocation follow more in the one than in the other, as will be evident to one applying the argument of n. 61. And no one can deny that bilocation properly so called does not follow precisely from the fact that a place otherwise adequate is now doubled; otherwise a human or leonine soul, when in an adult body it occupies a place a hundred times greater than in the first animation, where it then occupied an adequate place, would be said to be properly bilocated or located a hundred times. Therefore it is not properly bilocated unless, beyond the place naturally due to it here and now, insofar as clothed with such qualities or circumstances, it simultaneously exists elsewhere.

70. 3º An indivisible point of matter or quantity sufficiently differs from a spiritual substance both through impenetrability with another similar point and because it is an integral principle of a divisible thing. 4º No such point can naturally be extended to a place however great. For if local limitation belongs to an Angel, how much more to a corporeal point? Therefore for each point considered in itself there is naturally fixed a limit of maximum extension, one and the same for all since points of quantity are everywhere homogeneous in themselves, which limit perhaps comprises three thousand points of space. Similarly, for each there is fixed a limit of presence toward the minimum, namely one indivisible point of space; for a point of quantity can be reduced to this in maximal compression. In that event it will not be actually extended "as that which"; it will nevertheless be the root of extension, both when related to other circumstances and actually "as that by which," insofar as together with others it constitutes an extended quantity, which can result from unextended things according to the Zenonists. Within these limits, therefore, of the least and greatest presence absolutely naturally possible, any point can be rendered now more and now less extended according to variation of qualities or circumstances.

71. 5º The fineness of physically indivisible points is so great that many thousands or millions are required to constitute a bulk perceptible to sense. There are indeed tiny worms which are scarcely perceived even through the microscope, and yet in them there is an organic body woven from an almost infinite variety of parts. How many points in the head? How many in the little heart? How many in the little veins? How many finally in the whole body? And yet all together scarcely produce a sensible bulk. Hence one sees the ineptitude of what some object against swollen points, namely that one point could be so expanded as to be used for a shield which no blow could

penetrate. It is inept, I say, because a point of quantity, even if it reaches the greatest extension naturally possible, will occupy only the space of three thousand points, or, if preferred, one hundred thousand, in which state it cannot be seen by any microscope separately from others, much less be used as a shield. Yet because there are many thousands of points in every sensible body, the extensions of all taken together produce the visible extension of the rarefied body. 6º Finally, when we measure the extension of a point of quantity by points of space, we are not speaking of extrinsic real space taken materially, whose points can also be more or less extended, but of imaginary space, or intrinsic place as possible; so that for point A to be extended to three points of space is nothing other than to acquire a location corresponding to three mutually nonpenetrating locations which, taken individually, would be unextended.

72. These things being noted, scarcely any difficult argument remains against this opinion, at least from reason. For the objections brought against the second opinion from n. 65 do not press here. Not the first or second, because the reason for entitative and extensive inequality between the quantities of a grain and a mountain, or of an ounce and a pound, is taken from the unequal number of points of which they consist. Not the third, because length, breadth, and depth are indeed species of quantity in the Aristotelian continuum, but not in the Zenonian, which this opinion presupposes. For in the latter breadth differs from length through repetition of lines, and depth from breadth through repetition of surfaces, which difference is not specific in the physical sense, although it is in the mathematical. Add that according to the Zenonists the essence of quantity is preserved in an impenetrable point, though unextended, in which none of these species exists. Not the fourth, because a secondary formal effect is not caused by the form in the genus of intrinsic cause, but in the genus of moral efficient cause, as we noted in the *Physica*, tr. 2, d. 2, c. 2, n. 16. An extrinsic effect can vary from conditions or prerequisites situated on the side of the cause although the cause itself does not vary. Nor does the maxim, "as absolute is to absolute, etc.," hold in these effects unless the first is presupposed adequate to the cause in every case. For one would badly argue thus: intellect is required for understanding; therefore a greater intellect is required for greater understanding. Or thus: a soul is required to animate a body; therefore a greater soul is required for a greater body. For the same intellect can understand more and less, and the same soul can animate a lesser and a greater body.

73. Nevertheless, against this opinion it is objected 1º: the matter of a little grain of frankincense, when converted into smoke, is so rarefied that it

fills an entire room; therefore the individual points will attain a sensible swelling. I answer: not only the matter of the smoke occupies the room, but it is mingled with the air, which it tinges with its color, as when wine is mixed with water. Hence that extension which partly comprises the air is not properly rarity of the smoke. And generally, the entrance of parts of an alien body, which often occurs as no one denies, insofar as it occurs, does not increase rarefaction properly so called; otherwise a sponge soaking up water would properly be said to be rarefied.

74. It is objected 2º: therefore, when an Angel becomes present now to a greater and now to a lesser place, he will be said to be rarefied and condensed. I deny the consequence, because "rarity and density" are names devised only for material things, as is clear from the definitions given at the beginning. Indeed, they do not apply even to a material thing unless extension and contraction proceed naturally from the temperament of qualities; for in this sense, by the consent of all, the definitions of "rare" and "dense" are understood. Hence neither a miraculous bilocation of a body is rarity, nor penetration density; and therefore Christ's body is not condensed through Eucharistic presence. Thus also must the authors of the second opinion answer.

75. It is objected 3º: since the World is full of bodies, one body will not be able to be rarefied unless another is condensed so as to leave place for it. I grant the consequence, which likewise must be granted in every opinion, as Fr. Oviedo notes here, contr. 7, punct. 3, n. 12, provided condensation is taken broadly for compression, which is not difficult in the surrounding air, especially when distributed among many parts. It is objected 4º: no body will be able to be rarefied without occupying a space twice as great, for the individual points will acquire at least one point of space and consequently double the previously occupied place. I deny the consequence, both because the place previously occupied by a point of body often consists of several points of space, and because not all points of the body are always rarefied, but only those which become more heated. If, however, a body is presupposed to be maximally condensed and is simultaneously rarefied with respect to all its points, I grant the consequence. Many other objections are of lesser moment.

§ 3. Fourth Opinion.

75. [**bis**] Finally, the fourth opinion explains rarity and density through dilation and contraction of pores, so that for a body to be rarefied is nothing other than for its pores to be opened more widely, while conversely for it to

be condensed is nothing other than for its pores to be contracted more narrowly. If it is asked what occupies the little spaces of the pores when the body is rarefied, some answer that they remain empty and that an insensible and disseminated vacuum is not naturally repugnant. Others judge that they are occupied by extremely subtle alien corpuscles which immediately enter during rarefaction and are driven out in condensation, whether these corpuscles are from subtle matter which they call ethereal, from exceedingly fine air, from nitrous spirits, or from others more or less subtle according to the diverse capacity of the pores. This opinion, insofar as it adds entrance and departure of corpuscles, pleases all modern Atomists and Corpuscularians and also many Peripatetics, such as Arriaga, Oviedo, Téllez, Pontius, and others cited by Peynado, cit. disp. 7, n. 7; to whom add John Ulloa, *Philosophia naturalis* disp. 1, n. 144. And in it penetration and bilocation of parts are easily avoided. For there is in reality no greater mystery in the rarefaction and condensation of a body than in the fact that linen, when soaked with water, occupies more space, and less when the water is pressed out.

76. If it is objected 1º that the definitions of "rare" and "dense" are not preserved, because a rare body, if the alien corpuscles are counted, does not have little matter under large dimensions; whereas if only its proper matter is considered, this does not have larger dimensions than before, for no part occupies more space than before since the little spaces of the pores are not occupied by these parts. Similarly, a dense body does not have much matter under small dimensions, since it now lacks alien matter while its proper matter occupies as much place as it can in every case. It is answered that these definitions, which certainly are not canons of any Council, must be rejected if they signify that dimensions can properly and strictly be increased or diminished in the same matter. Therefore they are admitted only with the qualification "sensibly": insofar as, when wax, for example, is rarefied, its sensible matter is small, namely the matter of the wax, because the alien matter then entering is not perceived by sense, in relation to the dimensions which here and now appear in that body and which are wholly attributed to the wax alone because no other matter is sensibly present. Conversely, when wax is condensed, its matter seems much in relation to the dimensions then present, which could be far greater in the same matter without sensible increase. But when Aristotle and St. Thomas, concerning whose mind the Corpuscularians do not greatly care, deny an arrival or addition of new matter, they are to be understood of new matter not of any kind whatever, but proper to that body which is rarefied, as though it were properly integrally augmented.

77. If it is objected 2º that some bodies are rare in themselves, since fire, for example, is of its own nature rarer than earth. If, however, a body is constituted in the being of a rare thing through alien matter, fire in itself will be fire together with non-fire, or certainly will import an alien substance as a connatural property of itself. Hence the property of fire will be maximal density; indeed, no body will be rarer or denser than another, for a rare body, insofar as it includes alien corpuscles, is most closely packed and has neither fewer nor less contracted parts than the densest body of the same extension. Hence also there will be no greater weight in one body than another, other things being equal, since there is no more matter in one than in the other. Moreover, bodies rarer in themselves are likewise more perfect since they approach more closely to fire, the most perfect of the elements. But what contribution to perfection is made by looseness of pores or alien matter? It is answered that rarity does not formally consist in alien matter or in its entrance, but in looseness of pores, upon which that entrance follows, not from a peculiar and specific requirement of the rare body, but either from the mobility of surrounding corpuscles or from the general law of nature for avoiding a vacuum.

78. Hence it is denied that fire, insofar as it is rare in itself, is constituted from alien matter or imports it as a property of itself. It is also denied that every body is maximally packed or that one is not rarer than another, for it is certain that some bodies are more porous than others, although no one doubts, except the defenders of a vacuum, that pores are always filled with corpuscles. Packing or density, therefore, is here taken not for fullness arising from whatever source, but for constriction of the pores of proper matter, which prevents the entrance of alien matter. The point concerning weight must be solved by all: for it is established that more porous bodies are likewise lighter, although it is certain, unless recourse is made to a vacuum, that their pores are always filled with alien corpuscles which, if counted with the proper matter of such a body, will not constitute less matter than is present in a less porous body. Why, then, is the weight not equal in both? Therefore all must appeal to the nature of the corpuscles filling the pores, which either have no gravity or very little. Nor is inequality of matter inferred from inequality of weight except when the discussion concerns bodies consisting in themselves of heavy matter. That rarer bodies generally are more perfect is false, for gold, although the most perfect of metals, is at the same time the densest, as is evident from its weight. Pumice is not more perfect than diamond because it is rarer; nor is a slender body, though rarer than a male one, therefore more perfect. Rarity, therefore, of itself neither increases nor diminishes perfection; rather greater perfection

must be inferred from other indications, chiefly from activity, for in this fire surpasses the other elements.

79. If it is objected 3º that hence it would follow that a sponge when it imbibes water, or wine when diluted with water, or a solid body when reduced to powder, is properly rarefied, the consequence is denied because in these there is sensible introduction of alien matter; whereas rarity properly so called exists only when the introduction of corpuscles is insensible, because then the whole greater dimension is attributed to the matter alone of the dilated body, since no other matter appears to the senses. Add that in diluted wine and in powder there is not a mere relaxation of pores, but dissolution and discontinuation of parts. If it is objected 4º that there would be no cause why air violently compressed in a vessel or pneumatic gun should burst forth with such force, both because alien corpuscles can enter by no route and because there is no reason why relaxation of the pores should be so intensely desired. This reason applies also in subterranean fire which often bursts rocks and mountains apart in order to expand into the region of air. It is answered that this impetus of air or fire proceeds from the innate appetite for due rarity, which must also be admitted in the other opinions. The looseness of the pores is so intensely desired for the same reason that greater location is desired according to the other opinions: namely because it is here and now naturally due to such matter. Nor does greater utility of the thing appear in greater location than in looseness of pores. But alien corpuscles can enter through the pores of a vessel or gun. For no body is so solid that it does not have pores greater or smaller according to the diverse connection of its particles. And, furthermore, no pore is impervious to ethereal matter or to other heterogeneous corpuscles of marvelous subtlety which are scattered in almost infinite number through air, earth, and water.

80. One may object: since so many corpuscles are available, there will never be danger of a vacuum. Why, then, to avoid a vacuum are solid bodies often broken, and heavy bodies moved against their own inclination or prevented from falling? But it is answered that effects of this kind do not proceed from fear of a vacuum, but from other causes which we touched upon in the *Physica* where we treated Vacuum, a doctrine which the modern Experimentalists almost demonstrate. One may again object: in the celestial region some bodies are dense, others rare, and yet there are no alien corpuscles there. It is answered either that there is no rarity in any celestial body, because transparency or lesser opacity, from which it is commonly proved, does not establish rarity, otherwise glass would be rarer than wool; or that diverse corpuscles exist even in the celestial region, on which

elsewhere. One may finally object: why does fire not burn the alien corpuscles admitted into its pores? It is answered that they are either not combustible, or not so easily combustible that they do not fly away beforehand, while new corpuscles enter in their place.

§ 4. What Seems More Probable? With Something on Elastic Force.

81. In a matter so doubtful I hold nothing certain. But if strict rarity or density is admitted, of the sort signified by the definitions given at the beginning, it seems that 1º, granted the Aristotelian Continuum, only the second opinion, explained in its second manner, should be held, because no other appears more probable and it itself, apart from the difficulties arising from the Continuum, can easily be defended. 2º Granted the Zenonian Continuum, or one constituted from indivisibles finite in number, the third opinion should be preferred, as anyone can easily gather from what was said in § 2. Yet because nothing compels us to admit rarity and density in that strict sense, the fourth opinion seems preferable to all the others. 1º Because it is clearer and easier to understand. 2º Because it agrees better with various experiments asserted by modern Experimentalists, some of which may be seen in Tosca, tr. 4, lib. 2, prop. 7.

82. 3º Because from this it is well understood why heat conduces to rarity and cold to density: namely because heat relaxes the pores and cold constricts them, as we commonly experience. 4º Because it always remains difficult how extension of a body can be increased without addition of proper or alien quantity. For although formal extension, or extension in second act, is distinguished from quantity and consists in location, radical extension, or extension in first act, is quantity itself, as is commonly asserted or presupposed. But greater extension in second act presupposes greater extension in first act, otherwise, insofar as it is greater, it would be undue and violent. Therefore it presupposes greater quantity. The objection is pressed: formal extension, because it consists in location, cannot be greater through any quality without greater location. Therefore, since radical extension consists in quantity, it cannot be greater without greater quantity, whatever the temperament of qualities may be.

83. I add that recourse to insensible voids sometimes left within pores does not seem altogether improbable. For the arguments commonly brought for the natural repugnance of a vacuum perhaps have force against an "accumulated" vacuum, but not against a "disseminated" one. First, because by admitting this within pores the union of the parts is not interrupted,

otherwise it would also be interrupted by the pores themselves in the human body, for example. Second, because transmission of light and other influxes through a sensibly straight line is not impeded, for the inflections caused by little pores are not sensible. Third, because all effects by which fear of a vacuum is proved prove, if they prove anything, only fear of a notable vacuum. But it will be objected from Tosca, place cited, prop. 1: air can, as is established by various experiments, be dilated by rarefaction to a space seventy times greater than its connatural space; it can also be compressed artificially to one fortieth part of its connatural space. Hence the space of air maximally compressed, compared with the space of the same air maximally rarefied, is as 1 to 2800, as is clear by multiplying 40 by 70. Therefore, if rarity occurs through voids, in a palm-sized quantity of maximally rarefied air, of 2800 parts of space only one will contain air and the rest will be empty, which is absurd.

84. But this presses little. For first, why would it not be equally absurd that in such a space only one part is occupied by air and the remaining 2799 are occupied by non-air, that is, by alien corpuscles, which Tosca introduces? Certainly there is no reason why the voids should be more sensible than the alien corpuscles or should more impede the continuous sensible appearance of the air. See what we said in the *Physica*, penultimate c., in response to a similar argument against little pauses in local motion. Then, we do not maintain, nor do I think Gassendi or another defender of a vacuum maintained, that all the pores of a rare body remain empty; for there will always be many corpuscles entering them. We admit voids only in certain narrower pores when there is not present either a sufficient abundance or sufficient subtlety of corpuscles suitable for filling them all, which will happen not rarely. And thus, by having recourse partly to voids and partly to corpuscles, many of the present difficulties are softened.

85. It remains to say something about the "tensed" and "compressed." Peripatetics commonly confuse the tensed with the rare and the compressed with the dense. Hence they say that rarity sometimes proceeds from temperament, sometimes from external violence or from fear of a vacuum. But modern Experimentalists, whom some Peripatetics now imitate, distinguish them, because a rare body, while the same temperament remains, does not strive to contract itself, nor a dense body to extend itself. The contrary occurs in the tensed and compressed, as is evident in a wooden or iron bow, whose convex surface is tensed and concave surface compressed, and each strives to restore itself to its former and due extension, the convex surface to a lesser extension and the concave to a greater, which each immediately recovers when freed from external violence. Hence tension and

rarity differ in that tension imports violent extension, rarity natural extension according to the present temperament of the body. For although rarity is sometimes violent to the body considered in itself, as when water is rarefied by heat, it is nevertheless always connatural to the present temperament. Compression and density differ for the same reason. The motion by which the tensed or compressed thing returns to due extension is called "motion of restitution"; while the intrinsic force which requires and causes such motion is called "elastic force," and also "elasticity." By the latter name, however, there is often signified concretely a compressed body actually striving to restore itself, as the coiled steel spring in a wound clock.

86. Tension and compression, as regards avoiding bilocation and penetration of parts, must be explained in the same manner as rarity and density. But concerning elastic force it is doubted 1º whence it proceeds or wherein it consists. Atomists and Corpuscularians devise various mechanical causes and disagree not a little among themselves in this matter. But the Peripatetics briefly answer that this force is intrinsic and innate in the parts of quantity insofar as they are affected by such a temperament. For since quantity here and now requires such a determinate presence or dilation of pores, if it is drawn to a greater or lesser one, it innately resists and, as soon as it can, returns by its own virtue to the due state. This opinion is embraced among the Atomists by Maignan and Saguens, and is not rejected by Tosca, though somewhat inconsistently with his own principles. One may object: not every body has elastic force, as is evident in a leaden plate when it is bent, and yet every body requires a determinate extension congruent with its present temperament. I answer: not every requirement of determinate extension is elastic force, but only one which presupposes in the body a capacity violently to lose its due extension. Hence, if there is a body without pores, or so hard that it cannot in any way be bent by natural force, it will not be elastic. Nor are certain softer bodies elastic, whose parts, when they seem to be compressed, in reality do not lose their due extension but change place. Thus it occurs in a curved leaden plate, for some of its parts migrate from the concave surface to the convex. And this same reason explains why an elastic body, compressed for a long time, loses its elasticity: namely because prolonged violence compels some parts to change place.

87. It is doubted 2º whether elastic force is the cause of the reflected motion by which one body rebounds after striking another. The common answer affirms it, because no other suitable cause appears. For the cause of direct motion, namely gravity or impetus, although it contributes remotely to the reflected motion insofar as it induces compression, does not suffice to cause it proximately. Otherwise a lead ball would rebound more than a

playing-ball stuffed with wool, provided it were heavier or projected with greater impetus. Therefore both the striking and struck bodies undergo some compression; and when they possess elastic force and strive to remove the compression, the rebounding body acquires a reflected impetus partly from its own force and partly from the force of the body striking it back. See Fr. John Baptist de Benedictis, vol. 3, l. 2, q. 3, c. 6, and the author of *Philosophia Burgundica*, vol. 4, tr. 2, diss. 2, c. 5, where they solve certain objections and show that no body is so hard that, when struck, it does not undergo some insensible compression.

88. Here it is also commonly asked whether there is rest at the point of reflection; for example, when a playing-ball thrown violently against a wall rebounds, whether some pause occurs between the direct and reflected motion. Opinions vary. But we, who admitted little pauses even in simple motion where we treated the Continuum, will readily allow a rest or little pause between direct and reflected motion, at least in that instant in which the prior impetus and elastic force, or even impetus and gravity when a stone projected upward falls, arrive at equilibrium.

DISPUTATION II.
ON CORRUPTION.

CHAPTER I.
Corruption Is Defined, and Several Minor Doubts Are Resolved.

1. Corruption, opposed to generation, is usually defined as "the cessation of a thing while its subject remains"; and it will be called substantial or accidental according to the character of the thing that ceases to be. This definition applies to the corruption both of the composite and of a material form or union considered separately. Although such a form or union ceases into its own nothingness, it is not properly annihilated, but corrupted, as we maintained against the Corpuscularians in *Physica*, tr. 1, disp. 4. By the name "subject" is understood the sustaining subject, namely that which was presupposed and from which the thing was generated or educed. Corruption differs from generation both because the latter imports a positive action, whereas the former imports a cessation of action, and by reason of their terms, "from which" and "to which"; for generation tends from privation to form, corruption conversely. It also differs from annihilation, because the latter is the cessation of a thing into pure nothingness, so that neither any part of it nor its sustaining subject remains; indeed, as many hold, so that nothing else is substituted in its place by conversion.

2. It must be noted, however, that this definition comprehends only corruption possible according to the natural order, with no preceding or intervening miracle. This alone falls under experience and was known to

Aristotle. Nevertheless, that corruption can absolutely occur without the sustaining subject remaining is clear: 1º because, if God destroyed the matter of wood while preserving the form, the wood would be corrupted; 2º because, if the whole man, including even the union, were divinely produced by creation, he would nevertheless be corruptible, yet would have no sustaining subject; 3º because an accident preserved by creation, if it perished, would perish by corruption. Therefore the definition of corruption for every hypothesis will be: "The cessation of a thing that by its nature is generable." Consequently, the definition of annihilation will be: "The cessation of a thing that by its nature is creatable," at least if one adds, "without conversion into another"; because, according to many, the matter of bread in the Eucharist is not said to be annihilated, since it is converted into another substance. Hence the cessation of a creatable thing by virtue of conversion will be intermediate between annihilation and corruption. From this it is clear why those things are called incorruptible that require production by creation alone, although they can be annihilated by God, such as an Angel, a rational soul, and prime matter. Some things are also called incorruptible only in relation to natural causes, although, if they ceased divinely, they would cease by corruption, such as a glorified body and, in the opinion of many, the heavens, even if the celestial form is held to be educed.

3. Now you will doubt 1º in what sense that common saying is true, "The generation of one thing is the corruption of another." I answer: it is true in a formal or identical sense if the discussion concerns conversive generation, which is defined as "a change of the whole into the whole, etc."; for such a change undoubtedly includes the corruption of the preceding composite. But if generation is taken for the action, or for the transition from privation to form, it is the corruption of another only connexively, insofar as it is naturally connected with the cessation of the pre-existing form in the same subject. In the same sense it is likewise true conversely that the corruption of one thing is the generation of another. This, however, must be limited: 1º so that it does not apply to accidental forms lacking a contrary, for the generation of light, for example, corrupts nothing; 2º so that it does not apply universally even among substances if subordinated forms are admitted, for then the soul of a horse, for example, will be generated without the corruption of another and will be corrupted without the generation of any other; 3º so that it does not apply to the generation of a form or composite posited in the first instant of the subject's creation, which we showed to be possible in *Physica*.

4. Doubt 2º, whether generation is prior to corruption? The discussion concerns priority of nature between the eduction of one form and the

cessation of another in the same subject and in the same instant. Some hold that corruption occurs in a sign prior to generation. Others think both are given concomitantly. The common opinion maintains that corruption is posterior to generation and results from it as it were. Hence it is commonly said that the expulsion of the old form is a secondary formal effect of the new form, which presupposes, namely, its primary formal effect already exercised. The reason may be taken both from matter's efficacious appetite for some form, which does not allow itself to be stripped of the form it possesses until it obtains another, and because every form demands its own preservation until it is driven out by another incompatible form. One may object: the form already possessed is an impediment to the introduction of the new form. I grant this; but not every impediment must be understood as removed prior to the action. For if it can be removed through second act, as in the present case, its removal does not precede but follows. See what was said in *Physica*, tr. 2, d. 3, c. 5. One may object again: the expulsion of the old form is intended by the agent only as a means to the introduction of the new form, as to an end. I deny this, because the expulsion is intended as an indirect and secondary end, from what was said in *Physica*, tr. 2, disp. 4, c. 3, n. 8, et seqq.

5. Finally, one may object: prior to the new form there is the ultimate disposition toward it, and this disposition of itself expels the old form, both because it is incompatible with it and because it destroys the disposition that the old form requires in order to be preserved. I answer: the ultimate disposition toward the form of fire, for example, does not of itself immediately expel the form of water, but only mediately, insofar as it brings about the form of fire and entirely destroys the disposition proper to water. Hence, until these are understood to have been posited as means, the formal destruction of the water is not understood. See the passage of the *Physica* just cited, where we explained the order of the signs. Indeed, it can probably be said that, if the ultimate disposition toward fire were posited in the matter of water and God denied the form of fire, the form of water would not naturally cease: both because matter's repugnance to lacking every form would stand in the way, and because the form of water itself, although it would be violent in lacking its proper accidents, would nevertheless not be violent in retaining its own existence; and, on the other hand, the contrary accidents do not efficaciously demand its expulsion except insofar as they demand the form of fire, which demand would then be frustrated. Understand this on the supposition of the opinion denying subordinated forms; for in the contrary opinion, in order that the soul of a lion, for

example, be corrupted, the destruction of its proper accidental disposition is sufficient.

6. Doubt 3º, whether corruption is natural, or naturally intended or demanded by things? I say 1º: it is very probable that no thing naturally demands its own corruption. The reason is that a natural demand or appetite tends only toward a good advantageous and connatural to the thing desiring it; but a thing's own destruction cannot naturally be advantageous to anything, since it removes existence, which is the first basis and first foundation of every connatural advantage. Nor should it be said that destruction can be advantageous for avoiding an evil. For this advantage can indeed be desired by an elicited appetite, by which I do not deny that one's own cessation or one's own non-being can be desired; whether this can sometimes be reasonable I do not dispute; see Fr. John Maldonado on Matt. c. 26, n. 24. But an innate appetite cannot intend the avoidance of evil through the loss of its own existence, because it intends nothing except under the aspect of something connatural to itself, that is, proportioned and accommodated to its nature and causing the desiring thing to exist more advantageously, and thus presupposing its existence. I add that it also seems probable to me that no thing perishes without some violence, so that cessation is always contrary to the innate appetite for its own preservation. For since preservation is always of itself a good connatural to the thing, it is always desired, although it is often made naturally impossible by something extrinsic, according to the doctrine given in *Physica*, tr. 1, d. 3, c. 2. You will say: therefore a dog desires to endure forever. I distinguish: by a naturally infrustrable appetite, I deny; by an appetite that can be overcome by manifold natural causes, I grant. When death arising from illness is said not to be violent but natural, "violence" is taken in the common sense insofar as it signifies the action of an extrinsic killer.

7. I say 2º: corruption is natural to things that perish, both insofar as it proceeds from natural causes, or causes of the order of nature, and insofar as the things themselves are naturally liable to corruption, that is, by their own nature so weak that they cannot efficaciously resist the powers of contrary natural agents. In this sense, for example, man is said to be naturally corruptible and by his nature mortal. Man is also said to be intrinsically corruptible insofar as he intrinsically requires nutrition, through the operation of which he must gradually be worn down and finally die, as we showed in the preceding disputation. Yet man does not intrinsically demand this destruction or failure of powers, but suffers it, beyond the intention of his own nature, from the reaction of food.

8. I say 3º: no natural active cause, or cause not acting freely, immediately or directly intends by its operation the corruption of another being. That it does not do so immediately is clear, because every action immediately terminates in something positive, whereas corruption is something negative, or the mere non-being of a thing that previously existed. That it does not do so directly is clear from the fact that it is of no concern to an agent cause that another thing be corrupted except insofar as that thing prevents such a cause from exercising its own power in a positive effect. Since it directly intends that effect, it consequently brings about the removal of the impediment, or the corruption of the thing incompatible with such an effect. Hence it intends corruption only under the title of a consequence resulting from the direct end, which is to intend it only indirectly. Hence arose the saying, "No agent acts by intending evil," namely, by directly intending the mere destruction of another. Hence also, if, after the form of fire had been produced in the matter of wood, God willed that the wooden form not be expelled, the acting fire would suffer no violence, since it would already have obtained the end directly intended.

9. I say 4º: one thing often immediately and directly demands the corruption of another, not by means of an operation, but through its own nature or existence in a subject. This is clear in unsubordinated substantial forms, in heat and cold, in efficacious love and hatred of the same object, in Grace and sin, in the innate resistance of a sensitive nature to pain, and in other cases. You will say: one form does not demand the corruption of another opposed form except so that it may obtain its connatural state, which alone it directly demands. But to the contrary: the connatural state of heat, for example, is constituted by the absence of cold in the same subject; therefore that state cannot be directly demanded without the absence or corruption of cold being directly demanded. I grant, however, that corruption is not demanded insofar as it is evil for the thing that perishes, but insofar as it is good for the demanding thing with respect to its state. Hence, if cold were preserved by God outside a subject, heat would not demand its corruption, since it would no longer oppose it. Hence it is also true that "No thing naturally demanding intends evil," namely, insofar as it is evil.

10. Doubt 4º, what are the causes of corruption? I answer: corruption formally taken, since it is mere non-being, has no immediately efficient cause, unless, in a negative and improper sense, that cause is so called which ceases from preserving the thing that perishes. Usually, however, it has a mediately efficient cause, namely that which produces a form contrary to the thing that perishes. It also has, as we have just seen, a direct and immediate

demanding cause, which may be called morally efficient, whenever one thing perishes at the demand of another. And a demand of this kind, when proper to the form expelling another, is also commonly called the extrinsic formal cause of corruption, as was explained in *Physica*. The quasi-material cause is the subject from which the form is expelled. Finally, the final cause, at least when corruption does not proceed from a free secondary cause, is always some advantage of another thing, as can be gathered from what was said in n. 9.

CHAPTER II.
Whether a Thing Once Existing Can Cease by an Absolute Defect, or Only by a Relative One.

11. This doubt seems first to have been raised by Fr. Lynce, tom. 2 Philosoph. l. 7, tr. 2, n. 28, where, on the occasion of a certain argument against the duration which he maintains to be distinct from the enduring thing, he teaches that, on the supposition that the existence of a thing is given in some difference of time, no absence of such existence taken in itself can occur, but only the absence of some duration which it could have, although in fact it will never have it. The same was held by certain subtle Recent Authors cited by Fr. Peynado, tr. 2, *De Generat.*, disp. 5, n. 7. Thus this opinion denies that a thing once existing, for example in instant A, can in other instants suffer a defect or absence of its own existence taken in itself, that is, insofar as really codistinct from duration; this absence is called an "absolute defect." It grants, however, that the thing can admit a defect of duration in other instants. Such a defect is called relative for that thing, because it does not cause the thing simply to cease in itself, but only not to be at such a time, or to cease with respect to such an instant. And it thinks this sufficient for a created thing truly to be said, as it cannot be denied, absolutely or without qualification defectible or destructible by God.

12. But this opinion is expressly rejected by Fathers Izquierdo and Quirós, whom Fr. Peynado cites and follows at length in the disputation cited, as also by Fr. John Ulloa in *Prodrom.*, disp. 7, c. 4; nor does the mind of all other Authors seem different, since nowhere do they mention a relative defect separated from an absolute one. And indeed, if duration is not distinguished from the enduring thing and from extrinsic time, the said opinion is plainly convicted of falsity. For if Peter, existing yesterday, ceases today, this complex necessarily ceases: "Peter exists today." But it does not cease through a defect of today itself, as is clear. Therefore it ceases through a defect of Peter's existence taken in itself, insofar as codistinct from time;

for nothing else is constitutive of that complex except the day and Peter's existence. Hence, for the question to have any place, duration distinct from the existence of the thing and from extrinsic time must be presupposed. It must also be presupposed, at least for the sake of clarity, that absences of things have some objective being, whatever that may be, by virtue of which they begin and cease to be given on the part of the object. Both suppositions may perhaps be false; nevertheless, both are usually premised here by Authors on either side.

13. I think there should be no hesitation at all, but it must be said that a thing existing today can cease tomorrow not only through a defect of tomorrow's duration, but also through a defect of its own existence insofar as codistinct from duration. This is proved 1º from the absurdities that follow from the contrary opinion. For it follows 1º that nothing can truly and properly be destroyed by God, which it is impious to say. This is clear, because according to the Adversaries God can do nothing tomorrow concerning Peter existing today except deny him tomorrow's duration. But no destruction is involved in this: not of Peter's existence considered in itself, which remains unharmed, as you hold; nor of tomorrow's duration, because it is not produced, and mere non-production cannot properly be called destruction, otherwise all the Angels whom God never produced would properly have been destroyed. Certainly, for a thing to be destroyed is not precisely for it not to acquire something, but to lose being previously possessed. Therefore, while Peter only loses tomorrow's duration, which he never previously possessed, he is not destroyed.

14. Hence there would be no true transubstantiation in the Eucharist, or conversion of the substance of bread into the Body of the Lord, since after consecration the substance of bread would absolutely remain in the nature of things and would lose no being previously possessed, not even the union itself with the accidents, but would precisely fail to acquire a new accident of duration. Likewise, man would not truly die, since he would absolutely retain matter, form, and union and would lose no constituent of himself, but merely fail to obtain a new accident, which certainly is not constitutive of man. Likewise, after remission sin would absolutely stain St. Peter, and after sin Grace would absolutely sanctify Satan, since whatever had once constituted the denominations "sinner" and "holy," namely subject, form, and union, would absolutely remain in both. Who would not recoil at someone saying: "St. Peter is not indeed evil and an enemy of God at present, but nevertheless absolutely and simply he is evil and an enemy of God"? Change the statement to Satan, and you will recoil equally.

15. It follows 2º that Peter absolutely exists before he is first produced. Proof: Peter first produced today excludes the absolute absence of himself from every difference of time, as Fr. Lynce maintains in the cited place, and consequently from past time. Therefore he causes his absolute absence to have ceased in the past. But for that absence to cease is formally for Peter absolutely to exist; just as, conversely, for Peter's absolute existence to cease is formally for his absolute absence to be given. Therefore Peter, first produced today, causes himself absolutely to exist in past time, and therefore before he is first produced. The objection is urged: Peter's absence, if it is ever given, is eternal according to Lynce both *a parte ante* and *a parte post*. This can be true for no other reason than that such an absence excludes Peter from every difference of time. Therefore Peter's existence likewise will be eternal if it is ever posited, since according to the Adversaries it equally excludes its own absence from every difference of time. For it is no less repugnant that absence be excluded from a time in which existence is not given than conversely.

16. It follows 3º that Peter, once existing at instant A, cannot fail to endure at B and throughout the whole following time, and consequently cannot cease by a relative defect. Proof: Peter, once existing at A, is rendered a necessary being in the nature of things, or indefectible in himself, since his contradictory, namely the absence of Peter's existence taken in itself, is rendered impossible. But a necessary and indefectible being in the nature of things cannot fail to coexist with instant B and subsequent instants. Therefore he cannot fail to endure in it, since to endure at an instant is nothing other than to coexist with it. The minor is proved: because a being indefectible in the nature of things cannot fail to coexist with everything existing, as is clear in God, who for no other reason must coexist with every existing thing. You will say: in the present case it is presupposed that Peter cannot endure at B except through a superadded duration. I grant this; but your opinion destroys this supposition and contradicts itself in terms. For it posits Peter as invariably existing in himself after instant A independently of the superadded duration. But what thus exists after A truly exists while B exists; and this is formally to endure at B. Therefore this opinion posits without a superadded duration whatever belongs to the concept of "enduring at B," and consequently renders superfluous the very duration that it presupposes to be necessary. I omit other absurdities that may be seen deduced by Fr. Peynado.

17. It is proved 2º by reason: from the fact that Peter exists at instant A, he does not necessarily exclude his absolute absence from instant B; therefore he can cease at B by an absolute defect. The antecedent is proved:

Peter's existence, from the fact that it is at A, is not necessarily at B; otherwise he could not cease at B by a relative defect. But existence does not necessarily exclude its absolute absence from an instant in which it itself is not. Therefore, etc. The minor is proved: because existence excludes its contradictory only formally through itself; indeed, it itself is the unique formal exclusion of that contradictory, namely absolute absence. Therefore, in an instant in which existence itself is not, it does not exclude its own absence; for how will that absence be excluded in an instant in which its exclusion is not given? This would be just as if Peter existed at an instant in which his existence is not given. Confirmation: the whole reason why existence and absence mutually exclude one another is contradictory opposition. But this opposition does not require that they not be given in different instants. Therefore. The minor is proved: because contradictory opposition requires only that the absence and existence of a thing not be given "simultaneously," or that the thing not "simultaneously" be and not be; for it is founded on that principle, "It is impossible for the same thing simultaneously to be and not be." But for absence and existence to be given in different instants is not for them to be given "simultaneously." This is clear, because to be given at instants A and B is to be given successively; and just as those instants themselves, although both exist one after another, do not exist simultaneously, neither do those things that separately coexist with these instants exist simultaneously. Otherwise Grace and sin would exist simultaneously in the same subject, or the soul of man and the form of ashes in the same matter.

18. Finally, it can be argued thus: durations A and B are essentially successive according to the Adversaries, so that they can never coexist or coendure. But this cannot stand in the contrary opinion. Proof: according to the contrary doctrine, duration A, if it once exists, is rendered incapable of absolute defect. Therefore it absolutely exists when duration B arrives. Therefore it also absolutely endures while duration B endures, since in durations to exist and to endure are formally the same. But what absolutely endures while another endures, coendures with it, as seems evident from the terms. Therefore. Indeed, if duration itself, once existing, is incapable of absolute defect no less than any other thing, as the Adversaries hold, it follows that no thing can lose the denomination "absolutely enduring" once it has had it, just as it cannot lose the denomination "absolutely existing" once possessed, because existence cannot absolutely cease. Therefore it could now truly be said: "Sin absolutely endures in the Apostle Peter," or even, "Grace absolutely endures in the devil." I do not say it is true that "it

endures now," but that it can truly now be said to "endure absolutely"; which seems exceedingly absurd.

Objections Proposed and Solved.

19. Objection 1º: Peter's absolute absence, posited at B, absolutely excludes Peter from the nature of things. Therefore it also excludes him from instant A and from every other instant. Therefore Peter's absence and existence cannot coexist in different instants. The first consequence is proved: absence at B, if it absolutely excludes Peter, absolutely excludes this complex, "Peter exists at A," since it excludes one constituent of that complex, namely Peter's existence. But if such a complex is excluded, Peter is excluded from instant A. Therefore. I answer by distinguishing the antecedent: it absolutely excludes Peter from the nature of things that is at instant B, I grant; from the nature of things that was at A or at another past or future time, I deny the antecedent and the consequence. In its proof I grant that the said complex is excluded from instant B and therefore that at B this object is not in reality given, "Peter exists at A." Yet I deny that such a complex or any constituent of it is excluded from instant A through an absence at B, because absence, from the fact that it is at this instant, is not retrotracted into the past nor protracted into the future, just as existence is not, as the opponents themselves admit, lest they make it everlasting. Therefore the nature of created things, insofar as it comprises present, future, and past things, is not to be conceived as a permanent and invariant theater admitting no other change than that of time alone. For this would remove the intrinsic contingency of things and combine the natures of innumerable mutually conflicting things. Even the change of time itself would consist precisely in the addition of new days without the preceding days thereby ceasing to be in the nature of things, which plainly seems contrary to the concept of time, which consists in a continuous flux of existence. Therefore it can happen that the nature of things, that is, the collection of created things, varies absolutely in itself, so that the nature of things, or collection, is absolutely one thing at instant A and was another at B. Hence, although Peter is absolutely excluded from one collection, he is not therefore necessarily excluded from another.

20. Reply 1º: absolute absence at B verifies this proposition, "Peter does not exist at A"; therefore it excludes Peter from A. The antecedent is proved because it is the very same absence through which such a proposition would have been true if Peter had not existed at A. I answer: if the verb "exists" in such a proposition is taken properly, or as restricted to the present state, I

grant the antecedent, because at B, just as it is truly said that instant A does not exist, so also that Peter does not exist at A. But if "exists" is ampliated so as to have the same force as "has existed," I deny the antecedent. Its proof is manifestly retorted thus: Peter's present existence is the very same existence through which the proposition affirming that Peter existed yesterday and from eternity, or will exist tomorrow and forever, would be verified if Peter in fact existed from eternity and forever. Therefore such an existence cannot be given today without verifying the proposition affirming that Peter exists from eternity and forever. Therefore, just as existence does not verify that Peter exists yesterday, for example, unless it is conjoined with yesterday's duration, neither does absence verify that Peter does not exist at A unless it is conjoined with the duration of that absence at A. But that duration does not necessarily exist or have existed merely because the absence is given at B, just as Peter's duration yesterday does not follow merely because Peter exists today.

21. You will say: for the proposition "Peter does not exist at A" to be true, it is sufficient that Peter's absolute existence be excluded. But absolute absence excludes this existence through itself insofar as codistinct from its own duration for A. Therefore, if such absence thus codistinct is truly given at B, it verifies that proposition. But this argument is similar to the following: Grace, insofar as codistinct from its subject, expels sin through itself. But as thus codistinct it is given in Paul. Therefore, posited in Paul, it expels sin from Peter. Hence I distinguish the major premise: it is sufficient that existence be excluded from instant A, I grant; from instant B, I deny the major premise. Then I distinguish the minor premise: absence through itself excludes existence from the instant in which it itself is, I grant; from an instant in which it is not, I deny the minor premise and the consequence. We have already said above that the reciprocal exclusion and opposition between absence and existence is only in relation to simultaneity, or to the same time. Nor are they therefore not opposed through themselves, because each through itself excludes the other from the time in which it itself is. Thus Grace through itself excludes sin, but only from the subject in which it is.

22. Therefore, you will say, absence does not exclude existence absolutely, but only relatively, namely with respect to the time in which it endures. I grant the consequence if "absolutely" removes every order to time. Yet I deny it if it merely denotes that the exclusion is between absolute extremes, that is, between absence and existence insofar as codistinct from their durations, in which sense each is presently called "absolute" and said to exclude its contradictory "absolutely." Therefore absence at B does not

exclude existence except from B; nevertheless, it excludes it absolutely insofar as it causes Peter's existence, as regards its absolute entity codistinct from duration, not then to be given in the nature of things. But if one wishes that existence, insofar as actually excluding absence, or conversely, indirectly imports its own duration for such a time, just as Grace, insofar as actually excluding sin, imports its union with such a subject, I will not oppose this. For if anything absurd follows from this, it must be attributed to the opinion which we concede to the Adversaries concerning the distinction of duration from the enduring thing.

23. Reply 2º: absolute absence excludes existence without limitation. I distinguish: without limitation of entity, I grant; without limitation of time, I deny, while the absence itself has a limited duration. Reply 3º: the duration of absence at B does not limit the absence so that it not be or have been at A. I grant this; but the limitation could have come from Peter's contradictory existence posited at A. Reply 4º: absolute absence causes Peter absolutely to cease in the nature of things. Therefore it causes him to cease at every time, present, past, and future, since all these are comprehended by the nature of things absolutely. I retort: Peter's existence posited at A causes Peter absolutely to exist in the nature of things. Therefore it causes him to exist at every time, etc. Hence I distinguish the antecedent: in the nature of things actually existing when Peter's absence is given, I grant; in the nature of things not then actually existing, I deny the antecedent and the consequence. Nor is it true that the nature of things, said absolutely, comprehends all times; for what does not exist at present is not absolutely the nature of things, but was or will be.

24. Reply 5º: on the supposition that Peter existed yesterday, there cannot today be anything that prevents the truth of this proposition, "Peter existed yesterday," as is evident. Therefore Peter's absolute absence cannot be given today, for since this is the contradictory of the object of the said proposition, it would prevent its truth. I deny the consequence, whose proof is null, because the contradictory of the object of a proposition does not prevent its truth unless it is given for the time imported by the copula, which would not occur here. You will insist: does "Peter existed yesterday" cease today just as much as "Peter exists today," or not? If the former, then both will be false today. If the latter, then the contradictory of the former object is not given today. I answer: each equally ceases from existing today, for "Peter existed yesterday" is not given today; otherwise yesterday itself would be given today. Hence the contradictory of such an object is truly given, excluding it from today. Nevertheless, the truth of a cognition affirming today that Peter existed yesterday is not thereby excluded, because

this truth does not require an object posited today, but yesterday. You will still insist: absolute absence is no less contradictory to yesterday's existence than to today's. But because it is contradictory to today's, it excludes it. Therefore for the same reason it excludes yesterday's. I distinguish the minor premise: because it is precisely contradictory, I deny; because it is contradictory and because it is given today, I grant the minor premise. Then I distinguish the consequence: it excludes yesterday's existence from today, I grant; it excludes it from yesterday, I deny the consequence.

25. Objection 2º: this argument is valid, "Peter exists at some time, therefore he exists"; hence, since from the opposite of the consequent the opposite of the antecedent is inferred, this likewise will be valid: "Peter does not exist, therefore he never exists." But Peter's absolute absence posited at B is this concept, "he does not exist." Therefore from it one rightly infers that Peter does not exist at any time, or never exists, and consequently does not exist at A. I grant the whole if the verb "exists" is taken as restricted to the present state. For thus it has the same force as "exists at present," and it is most true that, while Peter's absence is posited at B, Peter at present does not exist at any time, or never exists, that is, not at any time or instant that is present, because only B is present, and at this he does not exist. Hence neither does he then exist at A, although he existed before. See what was said in Logic tr. 5, d. 2, c. 3 and 4, where we also showed that a present-tense verb, for example "runs" or "exists," signifies that its object is given at some one of the possible instants that is actually present. Hence, with a negation added, it will signify that its object is given at none of the possible instants that is actually present. But if the verb "exists" is ampliated to present, past, or future time, I deny the antecedent of the objection. For thus "exists at some time" has the same force as "either exists, or existed, or will exist." But from this antecedent you would wrongly infer, "therefore he exists," unless here also the verb "exists" is similarly ampliated. Otherwise, from the fact that St. Peter sinned at some time, you would rightly deduce, "therefore he sins." Likewise it must be denied that from the concept "does not exist" one infers, "therefore he never exists," if "never" comprehends also past and future as such. For then that inference is equivalent to this: "therefore he neither exists, nor existed, nor will exist," which is favored by no rule of Dialectic.

26. Hence the same objection is solved when proposed thus: through absolute absence at B this proposition is falsified, "Peter exists"; therefore so also is this one, "Peter exists at some time," since it is convertible with the former. But the latter cannot be falsified unless its contradictory is verified, namely "Peter never exists." Therefore through such an absence it is verified

that Peter never exists. I distinguish the first consequence: if "exists at some time" is ampliated to present, past, or future, I deny, for thus there is no convertibility; if it only affirms existence at some actually present instant, whichever it may be, I grant the consequence. "Never exists" must be explained similarly. If you still insist: Peter's existence now posited essentially entails that Peter endures in some instant; therefore absence essentially excludes the same thing. I distinguish the antecedent: in some possible instant that is present, I grant; in some instant considered indifferently to present, past, and future, I deny the antecedent, and under the same distinction I deny the consequence.

27. Objection 3º: absolute absence cannot exclude Peter from the nature of things without excluding him at Rome, Salamanca, and every place. Therefore likewise it cannot exclude Peter from the nature of things without excluding him at instant A, at B, and at every time. But this parity, on which the Adversaries rely too much, is retorted upon them. For if the Pope is supposed to exist at Rome, he is not truly and properly destroyed or dies at Salamanca because he does not have presence at Salamanca. Therefore likewise, if he is supposed to exist at instant A, he does not truly and properly die at B or at any time because he does not have further duration. Likewise, while Peter sins at Rome, wherever you may be you will truly say that Peter is actually an enemy of God. Therefore likewise, while Peter sins at one time, at whatever time you may be you will truly be able to say that he is actually an enemy of God. Therefore even today you could truly say this of Peter the Apostle. To the objection, those who with Fr. Carleton and Spinula hold that at the same time the existence of a thing can be given in one place and its absolute absence in another will deny the antecedent, so that of Peter existing here not only an absence of Roman presence but also an absence of absolute entity is given at Rome.

28. Setting aside that opinion for now, I distinguish the antecedent: without excluding him in every place coexisting with Peter's absence, I grant; in every place not coexisting with such absence, I deny the antecedent. The consequence is similarly distinguished concerning every time coexisting or not coexisting with Peter's absence. The only difference is that many places can coexist simultaneously with the same absence, whereas many times or instants can coexist with it only successively. Nevertheless, absence of itself no more excludes from instant A than from B or another, but only from the one that coexists with it, or is actually present, whichever it may be; and in this sense it excludes from every time under the aspect of the present. Add that, even granting the antecedent, the consequence can be denied because of a manifest disparity. For diversity of place does not

prevent two things from being said absolutely to exist simultaneously. Hence if Peter and his absence were actually given in different places, Peter's "being" and "not being" would already absolutely be given simultaneously, just as heaven and earth exist simultaneously. But diversity of time removes absolute simultaneity. For you would falsely say absolutely that Peter is simultaneously alive and dead because he lives today and dies tomorrow. Therefore, since absence only excludes existence from absolute simultaneity with itself, it is no wonder that it permits existence at a different time, though not at a different place while the absence itself is given.

29. Objection 4°: duration and its absolute absence cannot be given for different times. Therefore neither can other contradictories. The antecedent is proved: once today's duration is posited, its absence can no longer be given today, as is clear; and on the other hand it cannot be given tomorrow or at another time. Therefore. The minor is proved: because the absence of a duration cannot be given except when the duration can exist. But the duration cannot exist except today. Therefore. The major is proved: because the absence of duration at a time in which the duration cannot exist does not exclude it through its absence, but through itself. For today's duration by its essence has not to exist tomorrow. Confirmation: the absence of today's duration causes it not to exist today, since it excludes its essence, which consists in existing today. But on the supposition that today's duration is today, it is impossible that anything causing it not to be today should exist. Therefore its absence is impossible. To the objection, I deny the antecedent. To the proof, I deny the minor. In its proof I distinguish the major premise: a contingently posited absence of duration, I grant; a necessarily posited one, I deny the major premise, which is badly proved. For, once objective absences are presupposed, as they now are, a necessary absence must be admitted of a thing unable to exist, or for a time in which it cannot exist. Nor is today's duration said in any other sense to have by its essence not to exist tomorrow except insofar as by its essence it demands or grounds its own absence for tomorrow, just as fire is said by its nature to be hot because by its own nature it demands and roots heat.

30. Therefore, just as the same duration is contingent for today and impossible for tomorrow, so the same absence of it is contingent in relation to today and necessary in relation to tomorrow. If there is any difficulty in this matter, it is wholly transferred to the opinion concerning essentially successive duration. In other things, which of themselves are not bound to a certain time, absence is contingent for any time or instant, just as existence is. We therefore grant that if today's duration is supposed to exist, its absence insofar as contingent can no longer be given. Nevertheless, it can be

given tomorrow insofar as necessary or necessarily posited. To the confirmation I distinguish the major premise: the absence of today's duration, etc., posited today, I grant; posited tomorrow, I subdistinguish: it causes it not to exist today for today, I deny; it causes it not to exist today for tomorrow, namely by causing this object, "to exist today," not to be given tomorrow, I grant the major premise. Or it may be distinguished otherwise concerning the absence of today's duration posited tomorrow: it causes it not to exist today in the present state, or actually, I grant, for tomorrow it truly causes the very "existing today" not actually to be given in the nature of things; it causes it not to exist today nor to have existed today, I deny the major premise. The minor premise must be similarly distinguished, and the consequence denied as regards times other than today. Therefore the absence of today's duration posited tomorrow fulfills the notion of absolute absence more fully, because it causes the essence consisting in existing today not to be given tomorrow in the nature of things. Hence it excludes not only the chimerical tomorrow-duration of that essence, but immediately excludes the essence itself from the actual nature of things.

Some Inferences.

31. From what has been said you will infer 1º that an existing thing cannot be absolved from every time, that is, cannot actually exist in the nature of things without enduring in present time, whether real or imaginary. The reason is that a thing cannot actually exist without being determined, either formally or radically, to coexist with everything actually existing, from what was said in n. 16, and consequently to coexist with real time actually posited, which is formally to endure in real time, or with a possible time if it were actually given, which is to endure in imaginary time. I said "or radically," because, given the necessity of distinct duration, a thing actually existing, prior to the mode of duration, is already radically determined to coexist through modal duration with the present time. But if you refuse this, I ask whether, while the thing actually exists, the resulting of distinct duration can be prevented by God. If it cannot, I have my intent. If it can, then such duration is not necessary for the thing to endure in present time, since it is not necessary in order that, while time exists, the thing actually exist and therefore coexist with time, which is to endure in it. Moreover, a thing cannot actually exist without coexisting with God, and consequently without coexisting with everything with which God actually coexists. But God coexists with present time.

32. You will infer 2º that neither can a thing be conceived by the mind as actually existing without being conceived as presently enduring, at least radically. For if it is conceived as actually existing, it is conceived as existing now. If it is wholly prescinded from "now and formerly," it will be conceived as indifferent to verifying the verb "exists, or existed, or will exist." But in this way it is no more conceived as actually existing than as not actually existing; otherwise the sin of Peter the Apostle would more actually exist than not exist. Hence, when we speak of the absolute absence or existence of a thing, we do not take it as released from every duration, nor as prescinded from every respect to time, for the question itself expressly bears and requires this respect when it asks whether an absolute absence can tomorrow be given of a thing existing today. Rather, we call that existence absolute which, and insofar as, it is really distinct from its own duration, although necessarily conjoined with it; and we call that absence absolute which excludes existence thus understood. In the same sense absence or existence "in itself" is understood.

33. You will infer 3º that, even if one admits the opinion of those who say that a thing can divinely exist released from every duration, it must nevertheless be said that a thing and its absence can be given in the nature of things. I do not say that they are given simultaneously, because "simultaneously" cannot be preserved without respect to the same time, which would then be none; but only that both are truly given, although neither simultaneously nor successively, no otherwise than two Angels actually existing and released from every duration would be neither successive nor simultaneous. The reason for the inference is that, for example, a stone released from every duration would have a beginning by virtue of which it had passed from non-being to being; otherwise it would already have endured from eternity. It could also, as intrinsically defectible, have an end by virtue of which it would pass from being to non-being. Therefore the "being and non-being" of the stone would truly be, or could be, given in the nature of things. You will say: the absence, or "non-being," of the stone would exclude it from the nature of things. I distinguish: from the nature of things posited simultaneously with the absence itself, I grant; from a nature of things posited neither simultaneously nor successively, as it would be in that hypothesis, I deny. For absence only causes existence not to be given simultaneously, which it would also cause in that hypothesis.

34. You will infer 4º what must be said to the same question proposed otherwise in these terms: Can two contradictories be given for different instants? It must be affirmed concerning objective contradictories, or the absence and existence of the same thing, as we have sufficiently shown

above. You will say: absence and existence are not contradictories except in relation to the same instant, for absence at B does not contradict existence at A. Therefore, if absence and existence are posited in different instants, by that very fact they cease to be contradictories. I deny the consequence. For objective contradictories are those each of which through itself immediately excludes the other from the instant in which it is. But absence and existence posited in different instants would indeed have this character. Hence, although they are not contradictories except in relation to the same instant, insofar as neither excludes the other except from its own instant, nevertheless, because this exclusion is exercised by each when successively posited in different instants, they do not cease to be contradictories, each for its own instant. When it is said that absence at B does not contradict existence at A, distinguish thus: it does not contradict it by causing the existence not to have been at A, I grant, for it does not belong to the concept of objective contradiction that one contradictory cause from B that the other not have been at A; it does not contradict by causing that very existence which was at A not to be at B, I deny. But that these propositions, "Peter exists at A; Peter does not exist at B," are not contradictory arises from the fact that for intentional contradiction it is not sufficient to enunciate in just any way two objective contradictories, but they must be enunciated for the same time, for otherwise the propositions will not conflict in truth and falsity.

CHAPTER III.

Whether a Thing Once Corrupted Can Be Reproduced.

35. That all things now in the world existed long ago, that nothing now exists unless reproduced, and that all things, when they have perished again, will return again after a long interval comprising many thousands of years, commonly called the "Platonic year," to which Virgil's words referred, "And once again great Achilles will be sent to Troy": this, I say, was a Platonic delirium devoid of every appearance of truth, which St. Augustine refutes in l. 12, *De Civitate Dei*, c. 13. Nor does the passage Eccles. c. 1, "Nothing new under the Sun, etc.," favor this delirium, for it speaks of the specific likeness of present things to past and future things, as St. Augustine, l.c., and St. Thomas, 4 *Contra Gentiles*, c. 81, explain. Hence all agree that in fact there is or will be, according to the ordinary law, no reproduction of the same individual effects once they have perished, except those required for the perfect resurrection of men. For no one has entertained the suspicion that perhaps the fire he sees is numerically the very same by which Troy burned,

or that the she-ass on which he rides is Balaam's very she-ass restored to life after the long course of ages.

36. Nevertheless, it must be held that any entity destroyed can by the absolute power of God be reproduced numerically the same, with the sole exception of the mode of duration, if such is given. Thus almost all Philosophers and Theologians against Durandus and a few others, whose arguments the Excellent Doctor shows to be without force, tom. 2, in 3 p. d. 44, s. 6, and *Metaph*. disp. 5, s. 9. Certainly no contradiction can be proved in the fact that, for example, a fire once extinguished should again be kindled numerically the same, for the fact that it already existed before is an extrinsic circumstance that does not vary the concept of such an individual. Moreover, an efficacious reason for the natural impossibility of reproduction can scarcely be found, as we shall soon see. Nor does the saying "There is no potency with respect to the past" stand in the way. Its sense is that no potency can bring it about that a thing, on the supposition that it existed, did not exist. This is most true. Nevertheless, nothing prevents a thing that truly existed at instant A and ceased at B from existing again at C.

37. You will say: then the same thing could simultaneously be present and past. I distinguish: if "past" signifies that the thing was and now is not, I deny, for it would follow that it now is and is not; if it merely denotes that the thing was before and afterward ceased, I grant the consequence. Nor does the saying of Aristotle in the chapter *De Oppositis*, "There is no return from privation to habit," stand in the way, which the Philosopher proves because neither the blind recover sight, nor the bald hair, nor the toothless teeth. This, I say, does not stand in the way, both because Aristotle is not speaking of the absolute power of God, and because he is not speaking of a return to a numerically identical form, but to the same species. Otherwise, when in the same place he admits a return among contrary opposites, for example from heat to cold, he would be speaking of the same individual cold, which the Adversaries reject. Whether his rule is perpetually true is not presently our concern.

38. We excepted the mode of duration, if such is given, because those who admit a duration distinct from the enduring thing posit it as so essentially successive that it is modally bound to a certain time or instant; indeed, that time insofar as essentially successive consists in it. Hence, since the essence of today's duration is "to be today only," God cannot cause it to be reproduced tomorrow, just as He cannot cause what is the location, action, or union of man alone to be the union, action, or location of a horse. For it does not pertain to the power of God to overturn the essences of things. But this reason does not apply to other things that are not proved

essentially bound to one certain time rather than others. Hence what is commonly said, that successive beings cannot be reproduced, must be understood of successive beings insofar as importing determinate durations. Apart from this, for example, a motion of alteration or local motion, insofar as codistinct from duration, even if posited as essentially successive, could be reproduced numerically the same. For if it was produced yesterday over the course of one hour, why could it not today be reproduced over the course of another hour? In what sense time can be said to be irrevocable although no modal durations are admitted, we explained in *Physica*, tr. 3, d. 2, c. 3, n. 7.

39. There remains the more difficult question, namely whether the reproduction of a thing previously destroyed is naturally possible, or capable of proceeding from natural causes, or from God as Author of nature. The common opinion, held by the Thomists and most of Our Authors with St. Thomas, quodlib. 4, a. 5, and Fr. Suárez in the places cited, denies this. Yet although manifold proofs are brought forward, scarcely any is found sufficiently efficacious, as will appear by examining the principal ones. The first is that the beauty of the universe rejects the repeated production of the same thing, since it demands to be adorned with a multitude and novelty of things. This congruity too is hardly efficacious, for the universe would be no more beautiful through rose A first produced than through rose B reproduced, and so in other cases.

40. Second: that once an effect has been produced, its cause remains exhausted, and consequently unable to produce the same effect again. This is easily refuted, because when a cause produces an adequate effect it does not lose its power, as is certain; rather it is said to be exhausted, that is, occupied, insofar as it acts as much as it can for such a time and cannot produce another effect while it preserves that one. But just as by ceasing from its preservation it can produce another equal effect, why not also produce again the same one already corrupted? Add that often the same effect is contained in other causes, both univocal and equivocal, whose power is not yet exhausted. Third: that the individuation of effects is taken from circumstances of time and place, which once passed cannot return. This presupposes a doctrine that at most is true of extrinsic individuation, or individuation with respect to us. Otherwise every thing identifies with itself its own intrinsic individuation and haecceity, which, if duration and location are excepted, is not bound to a certain time or place. Otherwise the same man who is born in Salamanca this year could not even divinely have been born at another time in Madrid. Certainly the same light can be preserved for an hour; why then could it not within the same hour first be

produced, then corrupted, and in the last quarter-hour naturally reproduced?

41. Fourth: that if reproduction were naturally possible, the resurrection of man would not be a miraculous work. But to the contrary, the resurrection would undoubtedly be miraculous even if the soul of a dead man returned to the body through a new union never before produced, in which event no constituent of man would be reproduced. Therefore the miracle of resurrection does not depend upon reproduction, just as neither does the restoration of sight in a blind man deprived of his eyes, which would equally be miraculous whether it brought back eyes previously possessed or other new ones of the same species. The reason for the miracle must therefore be taken both from the difficulty of preparing the body for the soul outside the maternal womb and from the fact that the rational soul, although it innately desires union in itself, innately shrinks from reunion as such with a corruptible body, since this prevents the more perfect mode of understanding enjoyed by the soul separated from the body. Fifth: that, just as it is naturally repugnant to pass from one place to a distant place without passage through the intermediate place, so also it is repugnant for a thing to exist in distant times without uninterrupted existence in between. But this does not press the patrons of the affirmative side, according to whom it is not naturally repugnant for a body to be successively posited in distant places without passage through the intermediate, namely if it perishes at Madrid and is reproduced at Rome. But if one speaks of passage through continuous progressive motion, the parity proves only that a thing cannot pass from one time to a distant time by continuous duration without enduring in between.

42. Sixth: if reproduction were naturally possible, it would be naturally due; which no one grants. The consequence is proved because a thing once existing demands every advantage naturally possible to it. Therefore reproduction, as something very advantageous, will be due to this demand. But I deny the consequence, and in its proof I distinguish the antecedent: it demands, etc., for the case in which the thing itself does not cease to exist, I grant; for the case in which it has already ceased to exist, I deny the antecedent and the consequence. When a thing ceases to exist, it entirely loses every natural right, since this is not distinct from its existence. But no demand can render a term due to itself for the case in which its right to that term is entirely extinguished, as may be seen in dominion or moral right. That a meritorious act, after it has physically ceased, makes a reward due to itself is because the moral right, whatever it consists in, is not lost with physical existence so long as no prevailing offense is committed. Yet this

right remains not so much in the act as in the person meriting. Nevertheless, the physical right, or right to exist physically, is lost, and therefore that act does not physically demand to be reproduced.

43. Seventh: God does not cease from preserving a thing once existing, for example fire A, except at the demand of nature endeavoring to introduce an incompatible form. Therefore, if He once ceases, He must as Author of nature persist in not preserving such a fire, or, what is the same, in preserving its privation, as long as nature does not demand that this privation be removed. The consequence is proved by parity. For after God has produced fire A at the demand of nature, He must as Author of nature preserve it until there is a stronger demand to the contrary. Therefore one must reason similarly concerning the privation of such a fire, once posited at the demand of nature. Then thus: but no natural cause can demand that the privation of fire A be removed, because although it demands that a form of fire be produced in such matter, it does not demand that it be form A rather than B or another of the same species, since determination of effects as to the individual belongs to God alone. Therefore God as Author of nature must always preserve that privation. But the first consequence is easily denied, and likewise the consequence in its proof is denied. For God as Author of nature must preserve a fire once existing until there is a stronger demand, not precisely because He produced it at the demand of nature, since He must likewise preserve a fire produced at the beginning of the world with no preceding demand of nature, but because a fire once existing demands its own preservation and resists corruption. But the non-preservation or privation of fire, since it is nothing, demands nothing and does not resist its own exclusion; otherwise it would also resist the first production of the form. Hence, if the contrary agent is removed and the matter is again disposed toward the form of fire, God will violate no demand by reproducing the corrupted form.

44. From what has been said it seems to follow that the natural impossibility of reproduction is not sufficiently proved. Therefore several Scotists, alleging Scotus, and some of Our Authors with Fathers Hurtado and Oviedo, defend its natural possibility and think that reproduction is in fact prevented only by a law of God established apart from any demand of nature. Fr. Suárez does not differ greatly, *Metaph.* disp. 5, s. 9, n. 20, where, after showing the inefficacy of the other proofs, he finally concludes thus: "It must therefore be admitted either that this, namely that the same thing is not in fact reproduced, depends upon the divine will alone, or, if it has some natural cause, that it is hidden from us; and at most it can be said that, since these natural powers are ordained to the multiplication of individuals and

naturally intend it, it is more consonant with their natures that they should always receive concurrence toward new effects. For this reason it is founded not only in the will of God but also in the very natures of things that in human generations new souls are always produced and that souls already once created and separated are not again united to bodies." Thus far the Excellent Doctor.

45. In his words a reason sufficiently suitable for the common negative opinion, which I think should be held, is given. Namely, natural agents naturally desire to exercise their power and display as much as possible, without injury to another, the riches of goodness received from the Creator. For activity was bestowed upon them by nature for this end, as Philosophers everywhere presuppose, and even the Adversaries themselves, who admit that the law of God by which reproduction is in fact prevented is highly consonant with the natures of things. But what a power can do is manifested more by the production of new effects, of which it certainly contains innumerable ones of the same species, as is clear from physics, than by the reproduction of corrupted ones, since it is thereby shown to be less limited, or richer and more fecund. This can also be done without injury to another, since no demand of nature is thereby violated. Therefore natural agents desire to receive concurrence from God toward new effects, and consequently render the reproduction of corrupted things naturally impossible.

46. You will say: an appetite or demand of this kind is not so efficacious as to be naturally infrustrable. But to the contrary, that demand is judged naturally infrustrable which is never frustrated. For no other reason is the demand of matter for quantity, of fire for heat, and of the Sun for light believed to be such. But the aforesaid demand of natural causes is never frustrated, since no reproduction is in fact given, as the Adversaries suppose. Therefore, etc. You will say again: therefore natural agents, as soon as they produce something, desire its destruction so that they may produce new effects and thus exercise their power more and more intensively. I deny the consequence, because this cannot be done without injury to effects actually existing, which have a right to their own preservation so long as they are not attacked by a stronger agent of another species. But after those effects have ceased to be, if a new occasion for action occurs, no injury is done to them by the production of new ones.

47. The contrary opinion may also be rejected from an absurd consequence. For if a form corrupted at one time can naturally be reproduced at another, it could also, after being expelled from one adequate subject, naturally be reproduced in another distant subject. For form A is no

more of itself determined to a certain matter or place than to a certain time. Hence the form of fire A extinguished in this place could be reproduced elsewhere in other matter. Therefore this could also happen without interruption of existence, namely so that the form in the same instant in which it is expelled here from one matter is reproduced or preserved elsewhere by fire B applied to another disposed matter. For if this can happen naturally in the following instant, why not in the same one? From this, however, it absurdly follows that this is naturally not only possible but necessary, because the form of fire A, once existing, demands its preservation as long as this is naturally possible and renders it naturally necessary so long as no stronger demand stands in the way. But the demand of water, for example, extinguishing fire A here does not stand in the way. It intends only to occupy the matter here presented, and it is of no concern to it that the same form of fire be preserved elsewhere. Therefore the extinction of fire will not be a physically evident argument for the corruption of the form, since rather it would be physically necessary that the same form be preserved elsewhere if matter disposed for it elsewhere in the same instant is given. It will also be naturally possible, and often necessary, for a material form suddenly to change its adequate subject and to exist in this instant at Salamanca and in the immediately following instant at Rome or Mexico. Therefore, to avoid these absurdities, it must be said that a corruptible form, by the very fact that it loses the right of existing in the matter once possessed, can no longer naturally exist either in another subject or at another time.

48. Objection 1º: the power of a cause remains the same and unchanged whether the effect previously existed and ceased or not; for this circumstance is wholly extrinsic to the power of the cause and consequently cannot change it. But "what remains the same is always naturally apt to do the same," as the saying goes. Therefore the power of the cause is naturally apt to produce the same effect after its corruption just as before. There is added 1º the authority of Aristotle, l. 8 and 12, *Metaph.*, teaching that if the numerically same agent is applied to the same matter, it will produce the same effect. There is added 2º the experience of flies, bees, and certain other insects which revive after being suffocated. There is added 3º the example of Art, which can repair its works, for example a ruined house. To the objection I grant the premises and deny the consequence, because the power of the cause never had the natural capacity to produce an effect once already corrupted. Hence, although after the corruption of the effect the same power remains, it cannot therefore produce it after corruption, unless perhaps corruption is taken as a circumstance not "objective" but "subjective," which

terms we explained in *Physica*, tr. 1, d. 3, c. 2. Thus, although the Sun remains the same after withdrawing from this hemisphere, it cannot therefore illuminate it at night, because it never had the power to transmit light here from the other hemisphere.

49. Nor does it matter that corruption is an extrinsic circumstance. For it is also extrinsic to fire A that patient B be locally applied to it; nevertheless it cannot naturally act upon it if a circumstance of this kind is absent. I grant that without foundation no limitation of a power to acting only under certain extrinsic circumstances should be asserted, for example only on Sundays. Yet when a foundation is present, such as our proofs exhibit, this kind of limitation is not novel, as may be seen in the example of local application. You will say: the fact that an effect previously existed is now nothing. Therefore it cannot now be an impediment preventing the same effect from existing again. I retort: the interposition of a vacuum is nothing; and yet, if a vacuum were given between heaven and earth, it would prevent the earth from being illuminated by the Sun. Likewise, the defect of local application is nothing, yet it prevents the production of an effect in the patient. Similarly, my having existed yesterday at Salamanca is nothing today; yet it causes me not to be able naturally to be in Mexico today. If you say that in these cases a necessary condition for acting is lacking, I will likewise say that for natural action a necessary condition is that the effect conduce to a greater exercise of the power and propagation of the species. This condition is lacking by the very fact that the effect previously existed and ceased.

50. The additions to the argument of n. 48 are now easily answered. Aristotle must be understood of the same effect not numerically but specifically. For flies and other little animals to revive, the return of the corrupted form is not required; the production of another similar to the preceding one is sufficient. Art, however, when it repairs a house, physically reproduces nothing: not the stones and wood, as is certain, nor the artificial form, because it does not produce the numerically same arrangement of parts that perished, but another similar one. Hence the repaired house is physically the same only as regards matter. It is also called morally the same as regards form insofar as this is similar to the former and serves the same uses.

51. Objection 2º: several natural powers containing the numerically same effect are possible, and also several actions capable of terminating in it. But so many causes and actions would be in vain if the effect could not naturally be reproduced. I answer that the power of several causes with respect to the same effect, as also the possibility of several actions, is useful both so that

the effect can first be produced divisively at various places and times, and so that once produced it can be preserved by various causes so long as it is not attacked by a stronger contrary agent. You will say: therefore several actions capable of terminating in fire A will through its corruption become naturally impossible although they have not yet existed. I grant the consequence, in which there is no absurdity, because, since actions are wholly for the sake of their term, the same circumstance that renders the term naturally impossible likewise renders those actions impossible.

52. Objection 3º: this complex, "The thing existed at instant A and did not exist at B," can naturally coexist with the same thing existing at instant C. Therefore interruption of existence does not naturally prevent the repeated production of the thing. The antecedent is proved: the parts of that complex do not conflict with one another, and on the other hand each can naturally coexist with the same thing existing at C, as would happen if either the existence previously possessed at A were preserved at B, or the thing had not been produced before B. Therefore the complex of both parts can coexist with the thing's existence at C; for when two extremes do not conflict with one another, nor either one separately with the existence of a third, the complex of both cannot conflict with the existence of the third. I retort: then this complex, "Peter was in place A and not in B," could naturally coexist with Peter being in place C although he did not interrupt his existence. Proof: because each part of that complex can naturally coexist with Peter being found at C, as would happen if either Peter had passed from place A to B, or were first produced at C. Therefore the complex of both can coexist, etc. Thus Peter, without interruption of existence, would naturally pass from one distant place to another without passing through the intermediate, which is absurd. Therefore, to the objection I deny the antecedent, and to the proof I deny the consequence, because it can happen that something belongs to a complex which does not belong to its parts separately, and that either part, under the condition that it is conjoined with the other part, conflicts with some third thing although separately it can coexist with it. This is clear both in the example just given and in an act of divine faith which, if it enunciated, "Either Peter exists without Paul, or Paul without Peter," could coexist separately with Peter's existence and with Paul's existence, but not with both simultaneously, although Peter and Paul themselves are not incompatible.

CHAPTER IV.
Whether in Substantial Corruption Resolution Occurs All the Way to Prime Matter.

53. The sense of the proposed question is whether, in the instant in which one substantial composite is corrupted and another generated, all the accidents that inhered in the perishing composite perish together with the substantial form. This concerns not only those that were connected with such a form either as modes or as naturally inseparable properties, all of which certainly perish together, but also those accidents that are called "common," or which by their own specific character are not altogether incompatible with the new form. The question, I say, is whether all these perish so that nothing remains from the corrupted composite except prime matter alone. The Thomists affirm this; but the Scotists and Our Authors commonly deny it with the Excellent Doctor, *Metaph*. d. 14, s. 3. The mind of St. Thomas is doubtful, for in various places he favors the affirmative side, while in others he favors the negative, especially 4 *Contra Gentiles*, c. 81, saying that after the death of a man "matter remains under the same dimensions," that is, under the same quantity, "from which it had that it was individual matter." Likewise, III p., q. 9, a. 3, ad 2, where he teaches that the heat previously disposing matter toward the form of fire, when the latter arrives, "does not cease, but remains." Likewise in the places to be cited in the following chapter, where he holds that quantity is received in matter alone. If this is true, not even the Thomists will disagree in the present question. The negative side appears to us much more probable.

54. It is proved 1º by experience. For, as we see with our eyes, quantity, figure, organization, a birthmark, a scar, and many other accidents of flesh and bone that were in the living man commonly remain in the corpse. Likewise, the accident of gravity, foreign to the form of fire, commonly remains in glowing coal. Several qualities of wine remain in vinegar. In fire kindled from sulfurous matter there remain color and odor and other accidents more proper to sulfur than to fire. The same occurs in very many other cases. Therefore it is false that in the instant of the corruption of a composite all its accidents suddenly vanish. Against these facts the Thomists command us to correct the senses and firmly believe that accidents of this kind are not numerically the same, but only specifically the same, namely other accidents similar to the preceding ones, produced together with the new form. But no one is bound to correct the senses except either in

submission to Faith or in deference to manifest reason. Yet reason in the present case openly supports the senses. For if it happens that an Ethiopian dies suddenly crushed beneath a mass of snow, shortly after death there will be found in his corpse some heat, intense blackness, organization, and the structure of a human body. But these accidents are not produced anew by any cause. Therefore they are the very same accidents that inhered in him while living.

55. The minor premise is proved: such accidents are not produced by prime matter, as is certain; not by the accidents of the prior composite, which according to the Opponents do not exist in the instant of generation; not by surrounding causes, since scarcely any is productive of blackness, heat, or human organization; not by the cadaveric form, to which heat is contrary, to which blackness is no more useful than whiteness, and to which the organization of the ears, eyes, etc., is of no benefit; finally, not by a universal cause, because this operates nothing in matter except at the demand of a particular cause, and no such demand appears in the proposed case. For prime matter, of itself indifferent to any accidents, does not demand these rather than others. There is no reason why snow and the form of the corpse should demand accidents either contrary to themselves or wholly useless. And if the accidents of the corrupted composite cannot preserve themselves, it does not appear whence there belongs to them so strong a demand that, for their sake, the whole marvelous structure of the human body, which had cost nature so much labor and expenditure of time, should suddenly be produced.

56. The Adversaries say that these accidents are produced anew by a universal cause at the demand of prime matter, not indeed taken specifically, but insofar as sealed by the accidents of the prior composite. But it remains to explain what the sealing of matter is in the instant of generation. For if it adds nothing above the entity of prime matter, it is of no use, since that entity of itself demands no more these accidents than others. But if it adds something, either this addition remains from the corrupted composite, or it is produced anew in the instant of generation. If you say the former, then resolution does not occur all the way to prime matter. If the latter, there remains the difficulty we just examined of assigning an active or demanding cause of such an addition connected with the aforesaid accidents of the corpse. The mind of the Adversaries seems to be that the sealing is a certain extrinsic connotation, consisting in this: that matter immediately before had accidents similar to those we see in the corpse, and because matter cannot suddenly pass to contrary or excessively diverse accidents, lest a transition from one extreme to another be given without passage through the

intermediate, it must in the instant of generation receive other accidents similar to the preceding ones, which are afterward gradually lost.

57. But this solution is rejected 1º because matter suddenly passes from the soul to the very different form of a corpse. Why, then, could it not pass from one accident to another very dissimilar one? Certainly we commonly see examples of such a transition, as when gunpowder catches fire, or when fire suddenly ceases into charcoal upon water being poured on it. For a color contrary or most dissimilar to the preceding one suddenly appears. You will say: that color is demanded by the new form. Let this be so. But first, then, we have that a sudden transition of matter to dissimilar accidents is not naturally impossible. Next, the form of a corpse also demands cold contrary to heat, and yet after a sudden or violent death heat perseveres for some time in the corpse. Therefore changes of this kind do not depend upon the sealing of matter nor upon the demand of the new form alone, but upon the presence of a sufficient particular cause to overcome the demand for their own preservation possessed by the accidents of the prior composite even after its corruption.

58. It is rejected 2º because either it is the condition of all accidents to seal matter toward other similar accidents, or only of some. The first cannot be said. Otherwise, why does fiery color not seal the matter of charcoal toward a similar color? Why does light, when it suddenly perishes upon the lamp being extinguished, not seal the air toward another light? Why do the accidents of gold, which by a lightning strike is suddenly dissolved into ashes, not demand that other similar accidents be substituted? Indeed, it would follow that matter which once had one degree of heat could never exist without obtaining either that degree or another similar one. But if it is said to be the condition only of some accidents, let some accident be assigned to which nature has granted this seal. None will be assigned with greater right than organization, color, and gravity. But the fact that organization and color do not seal is sufficiently proved by the sudden change of a man struck by lightning and reduced to ashes, where there is "neither the same countenance nor the same color." That gravity likewise does not seal is shown by the change of gunpowder into flame. For us it is certainly sufficient that some accident among those we see in a corpse, beyond the demand of the new form, not possess the privilege of sealing.

59. Our opinion is proved 2º. The heat by which the matter of wood is disposed in the preceding time toward the form of fire, and understand the same of any accident preparing any matter for a new form, does not perish in the instant of the generation of fire. Therefore in that instant the wood is not resolved all the way to prime matter. The antecedent is proved: that

prior heat demands the advent of the form of fire, for it is introduced by the acting fire for this end. Therefore it does not perish when the form of fire arrives, for otherwise it would demand its own destruction, which would necessarily result from the advent of that form. Or otherwise: if the heat must perish when the wood perishes, since it demands its own preservation, it will likewise demand the preservation of the wood. But on the other hand it demands the advent of the fiery form, since it prepares for and is by its own nature ordered to it. Therefore it will simultaneously demand incompatible forms, which is absurd. Confirmation: if the prior dispositions of matter perish in the instant of generation, matter in that instant will have nothing by which it is determined to receive the form of fire rather than another. You will say that it is determined by the extrinsic agent. But to the contrary: suppose, as often happens, that the new generation is effected by an equivocal agent, for example by the Sun or the first cause. Why then is the form of fire produced rather than that of gold, when both matter and agent are of themselves indifferent to either? Confirmation again: that prior heat does not perish, first, through attack by a contrary, for the new form of fire with its accidents is not contrary to it; next, through defect of an efficient cause, since the fire that is to burn the wood is present, as I suppose; finally, through defect of the subject or material cause, since prime matter does not cease, and it alone is the sustaining subject of heat, as will be proved in c. 5. Therefore there is no reason why that heat should perish.

60. But since the principal foundation of the contrary opinion is that accidents are received in the whole composite and therefore must perish when the composite perishes, because they cannot change subject, our opinion is proved 3º from the inefficacy of that foundation. Granted that accidents are received in the whole composite, they need not for that precise reason perish when it is corrupted, provided another composite capable of sustaining them is substituted in the same place and time. But when wood, for example, is burned, a fiery composite is substituted in the same place and time, certainly capable of sustaining the prior heat, since according to the Adversaries it sustains another heat of the same species. Therefore, on this ground, resolution of the composite all the way to prime matter is not well proved. The major premise is proved by examples taken from Thomistic doctrine. For a material form depends no less upon its subject than an accident does. Yet the soul of a horse, which according to the Thomists is indivisible, changes subject when through nutrition it acquires new matter while losing matter previously possessed. If you say that only a partial subject is there changed, the same occurs in our case, where only the form is

changed while the same matter remains, which is certainly a partial subject of the accidents.

61. Moreover, according to the Thomists matter depends more upon form than an accident upon its subject, since matter receives all its actuality from form and cannot exist without form even divinely. Yet when one form perishes, provided another is substituted, the same matter perseveres. Again, in Thomistic doctrine the composite does not receive accidents except insofar as it subsists. Yet if the subsistence were changed, for example if human subsistence were destroyed and Divine subsistence succeeded, not all the accidents would therefore have to be changed. There is added another example doubted by no one. Namely, an accident depends more upon an efficient cause than upon a subject, since it can divinely exist without any subject, but not without every efficient cause. Yet it is certain that an accident first produced by one cause can be preserved by another, as happens with the heat of water, which, after being produced by fire, remains for some time after the fire is extinguished.

62. The quasi-*a priori* reason is that, first, the numerically same heat once received in wood, for example, is of itself indifferent to being received in fire. Otherwise it would not be of the same species as the heat of fire, since it would have an essential relation to a specifically different subject. Next, that heat depends upon the wood only through passion or inherence, which is the actual dependence itself. But passion, since it is really the same as action, can vary while the same heat remains, since the latter is commonly preserved through the action of a new cause. Therefore, when fire succeeds in the matter of wood, nothing prevents reception of the same heat in the fire. The consequence is clear, because neither does that heat of itself resist such a subject, since it is of itself indifferent to it, nor does the preceding passion resist it, for this ceases with the wood. And on the other hand the defect of that passion is not connected with the defect of the heat, since another passion can be substituted by a new cause.

63. The point is urged: because heat is of itself indifferent to being produced by various active causes, after being first produced by one it can afterward be efficiently preserved by another. Therefore, since it is also of itself indifferent to being received in various subjects, after first being received in one it can afterward be sustained in another, especially since its first passion or inherence can vary and often does vary. You will say that an accident is more closely connected with a determinate subject than with a determinate agent, both because a subject, as material cause, is an intrinsic cause and because an accident is individuated by the subject. But you gain nothing. For a sustaining material cause is not intrinsic by constitution, but

only by union or inherence. Yet there is no reason why such a cause cannot vary while the accident remains unchanged, just as union or inherence commonly varies, and just as matter varies with respect to the equine soul, of which it is no less an intrinsic cause. That an accident is properly and intrinsically individuated by its subject is false, as we shall show elsewhere. It is also useless as regards the present matter, for likewise the equine soul, according to the Thomists, is individuated by matter sealed through quantity, yet it changes both matter and quantity over the course of life.

64. You will say again: therefore an accident could naturally change its adequate subject. I deny the consequence, because it cannot naturally happen that, in the same place and time in which the first total subject ceases, another suitable one is substituted, as Fr. Oviedo shows, controv. 1 *De Generat.*, punct. 3. Nor does the example of the efficient cause establish this. Both because another active cause can easily be substituted for one cause in the same place and time, and because neither can the active power be altogether another, since the power of the first cause must always be present. It is therefore enough for us that a change of partial subject be naturally possible, just as its substitution in the same place and time is possible, as occurs whenever a new composite is generated after the old one is corrupted. Much more must it be denied that an accident can naturally "pass, migrate, or leap" from subject to subject. For these words properly signify local motion, namely that an accident, while its first subject remains unmoved, is carried into another subject situated elsewhere. Such motion is naturally repugnant, since no accident can be moved locally except through the motion of the subject in which it inheres. And the Ancients must be understood of this kind of local passage whenever they deny that accidents can pass to a new subject. We speak only of a change of partial subject while the accident remains unmoved. What some object here, namely that the rational soul could therefore pass into new bodies and that Pythagorean metempsychosis would not be repugnant from the nature of the thing, is frivolous. For whatever may be true of an accident, the Thomists do not deny that the matter initially possessed by the rational soul can be lost and new matter gradually acquired over the course of life. Does the possibility of metempsychosis therefore follow from this, or not? Hence, lest you be detained here by this objection, distinguish thus: if it follows equally from everyone's opinion concerning human nutrition, set it aside; if it does not follow from that, deny it.

Objections Are Answered.

65. Objection 1º: the authority of Aristotle, I *De Generatione*, t. 23, saying that in substantial generation the preceding composite perishes "with no sensible thing remaining." But something sensible would remain if not every accident perished. I answer: the words of the Philosopher are, "with no sensible thing remaining as the same subject." Here it is not denied that something sensible remains in any way, but that it remains as the same subject, because the same substantial composite does not remain. Nor is it denied that the same sensible thing remains as that by which, or in the manner of an accidental form, but only that the same sensible thing remains as that which, or in the manner of a subject. From this the difference, intended by Aristotle in that place, between generation and alteration is clear. For in alteration, although sensibility varies, as when water is changed from cold to hot, the sensible subject remains the same. But in generation, whether sensibility remains in some measure the same or not, the sensible subject is now another. You will say: matter, as the substance underlying an accident, is a sensible subject. Therefore, if matter remains with the same accidents, some sensible subject already remains the same. I answer: this equally presses the Thomists, since they do not deny that matter is a subject of accidents, at least partially. Therefore, since matter remains the same and indeed remains sensible through accidents at least of the same species, there is no doubt that some sensible subject remains the same. Nor does it matter that the accidents are not the same, for the sensible subject, for example the hot thing, is always the same whether the heat is A or B, provided the substance perseveres.

66. Therefore all must admit that by the name "sensible subject" Aristotle understands not matter alone but the whole composite, which is always the principal subject of attribution, even though matter alone receives the accidents. For just as the whole *suppositum* absolutely comes under the name of agent, although subsistence is not the principle of acting, and it would truly be said that the same agent did not remain if subsistence were changed while the nature remained with the same action, so must it be said in our matter. Aristotle is also commonly cited here in the chapter *De Substantia*, saying, "If the first substances do not exist, none of their things can remain." Hence the saying, "When we are corrupted, those things which are in us are corrupted." But Aristotle's meaning is that if all substantial individuals ceased, which are called "first substances," nothing would

remain in the state of existence, because then neither matter nor accident would exist. Aristotle could not have been speaking of any one individual, otherwise not even matter would remain from a corrupted composite. The saying, however, must either be rejected or understood only of those things which are in us as naturally inseparable properties.

67. Objection 2º: if, after a composite is corrupted, quantity, for example, does not perish, it follows that matter is united more strictly and insolubly to quantity than to substantial form. But this is absurd, both because matter makes one thing more perfectly with substantial form than with quantity, and because parts pertaining to the same Category are conjoined more connaturally and amicably and therefore are separated with greater difficulty. The objection is retorted in the rational soul, which with the intellective potency makes one thing accidentally, but with matter one thing essentially; yet it is never separated from that potency, while it is easily separated from matter. Moreover I answer that matter is united to quantity more strictly, that is, more permanently, than to substantial form, but not more aptly for constituting one thing. For the aptitude of a union to constitute something more one, or one thing essentially rather than one thing accidentally, is not taken from duration. Otherwise a diamond would be more essentially one than a tree, a horse, or a man. Rather, it is taken from the fact that the union regards extremes of the same genus or Category insofar as mutually ordered to constitute physically one thing. Hence it must be denied that things conjoined more amicably are separated with greater difficulty, since even in moral matters this rule often fails.

68. Objection 3º: matter receives substantial form before accidents, for the order of receiving and of regarding is the same, and matter regards form first and is ordered to it first. But if the accidents of the corrupted composite remained, they would be received in matter before the new form. I answer: matter regards substantial form before accidents by priority of dignity and intention, but not by priority of origin and execution. For matter must prior to form be disposed through accidents. Thus the visual potency innately regards vision before the species, although it receives the species first. Thus also the sick man regards health before medicines, although he receives the medicines first. Therefore the order of receiving is not the same as the order of principally regarding, since the latter is the order of intention and the former of execution. To this pertains the saying, "What is prior in intention is posterior in execution." It could also be said that matter indeed receives the accidents of the corrupted composite earlier by priority of time, but not earlier by priority of nature, because in the instant of the new generation those accidents are not understood as positively preserved until the new

form is understood in matter in a prior sign. And this must be said if accidents are received in the whole composite.

69. Objection 4º: accidents in a composite exist for the sake of the substantial form. Therefore, when this perishes, they cannot be preserved. I answer: first, quantity exists for the sake of matter, since it is its property, from what will be said in the following chapter. Next, heat and other prior dispositions preparing wood, for example, for combustion exist for the sake of the fiery form soon to arrive, not for the sake of the wooden form, to which they are rather opposed. Therefore these accidents should not perish when the wood perishes. For us it is sufficient that even one accident persevere. Moreover, I ask the Adversaries for the sake of what form the organs of sight, hearing, etc., exist in a corpse, since they are wholly useless to the cadaveric form. Finally, although there are several accidents which by their peculiar character are so connected with a determinate form that they cannot be preserved without it, there are nevertheless others which, although first produced for the sake of some form, do not depend uniquely upon it for their preservation, but of themselves demand to be preserved by equivocal causes as long as they are not attacked by a stronger contrary. Of this sort are those through which matter is prepared before the instant of generation. For just as they exist before the form is generated, so they can remain for some time after the form is corrupted.

70. Objection 5º: accidents must perish when their subject perishes. But when the composite is corrupted, the subject of all accidents perishes, since all are received in the whole composite. Therefore. I answer: the minor premise is false, as will appear in the following chapter. But granting its doctrine as regards the present matter, I distinguish the major premise: when the adequate subject perishes, I grant, or let it pass; when an inadequate subject perishes, I subdistinguish: if another suitable subject is substituted in the same place and time, I deny; if it is not so substituted, I grant the major premise. As to the minor premise, I admit that the subject of the accidents perishes, but only the inadequate subject, namely the form of the composite, and in such a way that another suitable one is substituted in the same place and instant. Hence I deny the consequence. Re-read what was said above, n. 60 et seqq.

CHAPTER V.
What Is the Subject of the Accidents Existing in a Substantial Composite.

71. No question is now raised concerning spiritual accidents which in man are certainly received in the soul alone. Nor concerning vital acts of sensing and vegetating, which perhaps by their own character are subjected simultaneously in matter and soul, in matter because they are material, in the soul because they are vital; concerning this in *Animastica*. Nor, moreover, concerning modes which pertain peculiarly to either part of the composite, such as the location of form or matter; for such a mode inheres in that part to which it is proper. The question, therefore, for which occasion is here furnished by the preceding question resolved in the preceding chapter, concerns the other material and absolute accidents, such as quantity, heat, cold, color, etc., namely what subject of inherence they have. I say of inherence, or, what is the same, of "sustentation or reception" in the manner of a material cause. For it is certain that the whole composite is the subject of "denomination," since the whole is denominated quantified, hot, etc. Nor from this does the inherence of accidents in the whole composite follow by force of the terms, since discursive reasoning, inhering in the soul alone, denominates the whole man as reasoning. The first opinion, which the Thomists commonly hold, affirms that accidents inhere in the whole composite. The second, which Our Authors commonly defend with the Excellent Doctor, *Metaph.* disp. 14, sect. 3, asserts that matter alone is the subject of inherence of accidents.

72. This second opinion is proved 1º: accidents which in the instant of generation dispose matter for the reception of form are not received in the form. Therefore they are received in matter alone. Therefore the same must be thought of the others, since according to the Adversaries the reason is the same in all. The antecedent is proved: accidental dispositions are understood as produced and existing in matter in a sign prior to the form. But by that very fact they are not received in the form, or do not depend upon it as upon a subject of inherence and material cause. Therefore. The major premise seems clear, for those dispositions prepare matter in no other way than by inhering in it and informing it. But they cannot inform matter prior to the form unless they are already understood as produced and existing, as is manifest. The minor premise is proved both because the dispositions, if they already exist prior to the form, are already outside all

their causes, and therefore outside their material cause; but they are not outside the form, which prior to itself does not yet exist. Therefore they do not depend upon the form as upon a material cause. And also because the dispositions, in the sign in which they are understood as produced, already terminate their own eduction and therefore the passion or material causality which is not really distinct from eduction. But they do not terminate the material causality of the form, from which abstraction is made in that sign. Therefore, etc.

73. Nor is the Thomists' recourse to mutual priority of any use, namely that form is prior to accidents in the manner of a subject while the accidents are prior to form in the manner of a disposition. For, besides what was said in *Physica* against mutual priority even in diverse genera, in the present case there follows a mutual priority and causality in the same genus, which even among the Thomists is contradictory. The consequence is clear, because dispositions precede form in the genus of material cause, for to this genus, according to the Thomists, the dispositive cause, which stands on the side of matter, is reduced. On the other hand, form also precedes the dispositions in the genus of material cause, since it is their subject of inherence. Nor should it be said that the genus of material cause allows mutual priority because it is subalternate, containing under itself diverse genera. For the genus of efficient cause is likewise subalternate, yet in it mutual priority is repugnant, for example between a univocal and an equivocal cause.

74. It is proved 2º from Thomistic doctrine. The ultimate dispositions and other accidents resulting from the form are, according to the Thomists, produced by the generator through the same action by which the form itself is produced. Therefore the form cannot be the material cause of such accidents. The consequence is proved: the form cannot be the material cause of that passion by which accidents are sustained in a subject. Therefore neither can it be the material cause of the accidents, for these are caused by the subject only through the passion, as no one doubts. The antecedent is proved: the form cannot be the material cause of its own eduction, otherwise it would cause itself. Therefore it cannot be the material cause of the eduction of accidents if this eduction is an action really indistinct from the eduction of the form. But the eduction of accidents is really their passion in the subject, since action and passion are really identified, as is held by an opinion also familiar to the Thomists. Therefore the form cannot be the material cause of the passion by which the accidents are sustained in the subject. 3º from another doctrine of the Thomists reported in the preceding chapter, namely that if accidents are received in the whole composite, they necessarily perish when it perishes. For from this it follows that the

accidents which dispose a composite toward corruption cannot be received in its form. Otherwise they would demand the corruption of the subject they require in order to exist, and consequently would demand their own corruption.

75. Finally, it is proved: the quantity of a man is in no way received in the rational soul. Therefore it is received in matter alone, which consequently is a subject apt to sustain accidents although it is not assisted in this genus by form. Hence the principal foundation of the Thomists collapses. The antecedent is proved: quantity cannot naturally be received in a subject to which it cannot communicate its sole formal effect, for this is an unshaken law for all forms, both substantial and accidental. But quantity cannot render the rational soul "quantified," which is the sole formal effect communicable by quantity. Therefore, etc. The minor premise is clear, because the quantified is that which has radically extended and impenetrable parts, a notion that certainly cannot be verified of an altogether indivisible soul. Here note that a modal and relative form which contains several formal effects or diverse denominations need not communicate all of them to the subject in which it is received, provided it communicates some one. Thus generation, which is simultaneously a passion, when received in matter does not denominate it "generating" but "undergoing." But an absolute form, such as quantity, since it contains only one denomination, or if it contains several all presuppose that one, would be altogether in vain received in a subject incapable of such a denomination, no otherwise than if Grace were received in a stone.

76. You will say: although the rational soul cannot separately receive quantity, it can nevertheless receive it insofar as taken together with matter, or insofar as informing matter, so that it is a recipient only "as that by which." But to the contrary: either "insofar as" and "as that by which" indicate that the entity of the soul is immediately affected by quantity and terminates its reception in itself, or they do not. If not, then matter is the sole subject immediately affected by quantity and terminating its reception, which alone we intend. But if they do indicate this, then the entity of the rational soul, while united to the body, will properly be quantified, just as the entity of matter is properly quantified, although according to the Thomists matter receives quantity only insofar as conjoined with form and is a recipient only "as that by which." But, you ask, is not the whole man including the soul denominated quantified? He is indeed so denominated, but only "as that which," or in the manner of a whole. In this sense the denomination "quantified" is the denomination "having extended parts," which is verified of man by reason of the matter he has. Thus man is

denominated "understanding" by reason of the soul in which intellection alone is received.

77. Hence you will infer that neither in other composites, where form is divisible, is quantity received in form as in a subject of inherence and material cause. The reason is that quantity depends no less on matter in wood, for example, than in man. But in man it depends on matter as on a sufficient and adequate cause in the genus of material cause. Therefore it does so also in wood. But an effect depending upon one cause adequate in a given genus cannot naturally depend simultaneously upon another cause of the same genus. Therefore, although the form of wood and every other material form is immediately quantified, that is, extended in place through location or the presence of parts outside parts, it is nevertheless not quantified, that is, rooting and rendering due to itself extension, which is the formal effect of quantity, except mediately or by reason of the quantified matter to which it is united. This occurs because the individual parts of the form correspond to the individual parts of matter, whose extension they must consequently imitate, although they do not receive quantity in themselves. Thus St. Thomas expressly teaches in I *De Generatione*, lect. 15, saying: "Place is not due to form and species except by reason of matter, which is properly the subject of dimensional quantity." You will say: nothing can be thus extended unless it receives quantity or at least is received in quantity, as qualities are received. But to the contrary: the subsistence of a material form and its existence, which according to the Thomists is distinct from essence, neither receive quantity nor are received in it, and yet they are truly coextended with matter and quantity.

78. I add, however, with Fr. Quirós and Fr. John Baptist de Benedictis, l. 4, *Physica*, c. 6, § 2, that there is no difficulty in quantity being immediately united to a material form as to a subject of "information," or, what signifies the same, "mere reception," provided it is simultaneously received in matter as in the sole subject of "inherence." The reason is that a subject of mere information neither exercises passive or material causality nor imports priority with respect to the form, as we showed in *Physica*, tr. 1, d. 2, c. 2. Nor does the form otherwise depend upon such a subject in such a way that it cannot naturally exist without it, as is clear in the rational soul. Therefore, although quantity is united in this way to a material form, it will not thereby have a more-than-adequate material cause, nor will mutual priority be given between quantity and form, nor will quantity in man be violent although there it does not affect the soul but matter alone. On the other hand, in a material form no disproportion appears preventing its being immediately affected by quantity. Therefore there is no reason why this affection or union

should be denied. Think the same of qualities, which, although they inhere in matter alone through quantity, can simultaneously be united to a material form as to a subject of information, so that this form is truly affected and perfected by its own properties.

Arguments to the Contrary Are Solved.

79. Objection 1º: Aristotle, according to whom the subject of generation is matter alone, but the subject of alteration is the whole composite. Yet the subject of alteration is certainly the subject of the accidents produced through alteration. Likewise St. Thomas in various places, and especially I p., q. 76, a. 6, where he teaches that no accident can be understood in matter before substantial form. I answer: Aristotle speaks of the subject of denomination and wishes generation, insofar as it is the passage of a subject from privation to form or from one form to another, to denominate matter alone, whereas alteration principally denominates the whole composite. For this we truly say passes, for example, from cold to hot. Add the retortion: according to Aristotle generation is received in matter alone. But generation is an accidental mode according to the Thomists. Therefore some accident is already received in matter alone, which they themselves utterly deny.

80. St. Thomas expressly holds our opinion in the place cited at n. 77. Likewise q. 5 *De Veritate*, a. 9, ad 6, where he says thus: "Dimensions," that is, tridimensional quantity, "are pre-understood in matter, not in complete act before natural forms, but in incomplete act; and therefore they are prior in the way of generation, but form is prior in the way of completion, namely by priority of dignity." He explains this more fully in IV, dist. 11, q. 1, a. 1, at the end, saying: "The dimension which is pre-understood in matter before substantial form does not have complete being, because it is not terminated dimension; for the termination of dimension is through form." Here he plainly teaches that quantity is received in matter prior to form, and is called "unterminated," that is, prescinding, insofar as is due from matter, from a certain measure and figure, whose determination comes from form, at least insofar as contained in the power of the generator. For it is attributed not to matter but to form that bodies, especially living ones, have such a figure and such a size. But if quantity is received in matter alone, the same must be judged of qualities, since they are received only through quantity. To this also pertain the passages cited above in n. 53, to which others could be added. Hence, to the passages objected against us, it must be said either that St. Thomas denies to accidents only priority of intention, not priority of origin, or that it is uncertain to us what he held according to his own opinion

in the present matter. For I do not approve what some Thomists maintain, that St. Thomas changed his opinion. Add that the Angelic Doctor does not say that accidents inhere in form, but that they do not arrive before form is in matter, which certainly can stand even though accidents inhere in matter alone, as I shall soon say.

81. Objection 2º: matter, since it is pure potency, does not have existence prior to form. Therefore until it receives form, through which it is rendered existing, it cannot receive accidents. Confirmation 1º: matter must first be completed in its proper substantial line before it is completed in a diverse, namely accidental, line. Confirmation 2º: because substantial form is first act, whereas accidental form is second act. But first act must precede second act. 3º because accidental and substantial act differ in this, that the latter comes to an incomplete being, whereas the former comes to a complete being, or the whole composite. 4º because matter does not undergo accidents before it is subsisting, for passions, like actions, belong to *supposita*. But it is not subsisting until it receives substantial form. 5º because accidents are received in that subject to which they principally attribute their formal effects, namely their denominations. But these they principally attribute to the whole composite, which they denominate "white, hot, etc." I answer: all these, even if granted, would not prove substantial form to be a partial subject of accidents, but only a prior condition for accidents to be received in matter. Thus, according to the Thomists, existence and subsistence are prerequired for acting and undergoing; nevertheless they are not the principle of acting or undergoing, but only a prior condition for active power and receptive potency to exercise themselves. Given this doctrine, the proof of our opinion from the priority of accidents would indeed be inefficacious, but the other proofs would remain in force.

82. In reality, however, it is false that no accident inheres in matter before substantial form. Hence to the objection I deny the antecedent, because matter has its own existence, as we showed in *Physica*. But if you prefer, I grant the antecedent and deny the consequence. For if matter, however much pure potency, is prior to form a subject proximately apt for substantial form, why not also for accidents? Likewise, if matter prior to form, although not yet existing, already terminates the creative action, why can it not also terminate the union of accidents? To confirmation 1º: that rule does not hold when completions in a diverse line are necessary dispositions for matter to be completed in its proper line. To 2º: substantial form is first act in the order of intention, perfection, or dignity, but not in the order of execution and origin, in which several accidental acts can and

must be prior, since they prepare an entrance for that form. Nor is there any doubt that an accident in some true sense is a first act, since according to the Adversaries it precedes substantial form with a true priority of nature in some genus of cause.

83. To 3º: whatever comes to a complete being, or a being in act, is indeed an accidental act, as Aristotle and St. Thomas often teach. But it does not therefore follow that whatever comes to an incomplete being is not an accident, just as whatever speaks is an animal, but not everything that is silent is not an animal. Hence the general distinction between substantial and accidental acts is not taken from this consideration, but from the fact that one rather than the other is intended by nature for the sake of an adequately distinct *suppositum*. And indeed, if every accident must come to a complete being, how can it dispose matter so that matter may be substantially completed, unless perhaps it disposes matter to have that which it is already supposed to possess? Therefore that accident comes to a complete being which results as a property of the composite, either as a perfecting and adorning disposition or even as one disposing the composite toward corruption. But an accident that performs the office of the ultimate disposition toward a new form does not. Yet even what comes to a complete being need not be received in the whole composite, just as the use of reason comes to man already integrally constituted but is nevertheless received only in the soul.

84. To 4º: in a probable opinion matter has its own subsistence prior to form. But even if it does not, it must be denied that subsistence must precede the passions preparing matter for subsistence, although these are afterward attributed to the constituted *suppositum* as to the subject of the denominations "hot, cold," etc. Certainly the passion by which matter receives substantial form or union precedes the subsistence of matter if the latter comes from form. Generation too, although attributed passively to the *suppositum*, is prior to it. To 5º, there is an evident counterexample in the whole *suppositum*, which passions and actions principally denominate as a whole, although they are not received in or proceed from the whole; for subsistence does not by reason of itself receive or act. There is also a counterexample in the denominations "judging, willing, just, prudent," etc., which are principally attributed to the whole man although they proceed from forms received in the soul alone. Therefore all must admit that, for the whole to be denominated by some accident "as that which," and in the manner of a principal subject, it is sufficient that the accident be received in some part of it.

85. Objection 3º: accidents, since they are properties of the composite, efficiently emanate from its form. Therefore they cannot be received in matter before form. I answer: first, many accidents are commonly in a composite which are not its properties, but either induced from without or remaining from the preceding composite. Next, several of those that efficiently emanate from form truly precede form in matter by some genus of priority, according to the Thomists. Finally, even those accidents that purely follow form have no reason to inhere in the whole composite. For from the fact that form is their efficient cause it does not follow that it is also their material cause, but at most that it is a subject of information, from n. 78. How, however, the accidents that precede form in the instant of generation are properties of the form and efficiently emanate from it in following instants was said in *Physica*, tr. 2, d. 4, c. 3, n. 10.

86. Objection 4º: if quantity is received in matter alone, it will be incorruptible, since it cannot perish through defect of a subject or through attack by a contrary. I grant the consequence with the Excellent Doctor, disp. 14, s. 3, n. 57 and 58, where he very well proves that quantity is a property of matter, or of the composite by reason of matter. Hence it follows that it is coeval with matter, inseparable from it, and corruptible only integrally, or as regards integral unions, in which sense matter itself also is corruptible. Hence motion toward quantity is not the production of a new quantity, but "accretion," that is, the addition of one quantity to another. When Aristotle says that matter is "not quantified, not qualified," etc., he does not deny that matter receives quantity, otherwise it would not even be a partial subject of quantity, but only that matter is identified with it. It is in this sense that matter is called "formless," not because it receives no form, but because it identifies no form with itself. You will say: quantity is a property of the composite according to the grade of body. But this grade comes from form, just as the grades of living thing, animal, etc. Therefore quantity is a property of the composite by reason of form. Certainly quantity is due to the composite by reason of form, which is true even in man, since the rational soul demands quantified matter and cannot otherwise inform it.

87. I answer: first, it is not necessary that some peculiar species of accident correspond to the composite according to the grade of body. For since this grade is generic, it demands only a generic property, which can be material quality as such. Next, granting the premises, I distinguish the consequence: by reason of form as end, or as a root merely demanding it, I grant; as an efficient root by emanation, I deny the consequence. Therefore, just as matter is ordered to form as to an end and is demanded by form, and consequently can be called due to the composite by reason of form, so also

quantity, without which matter cannot be a suitable subject of form or of its operations. But just as matter does not therefore efficiently emanate from form but is presupposed to it, so must it be judged concerning quantity. For quantity to be called absolutely a property of the whole composite, it is more than sufficient that it emanate from matter and be demanded by form for connatural existence and operation, although it cannot be called a property of form considered separately because of the defect of emanation and inherence. Understand this of unterminated quantity. For insofar as affected by certain dimensions or terminations, it is rather an effect of the form or generator than of matter. See above, n. 80.

CHAPTER VI.
Whether Quantity Is the Proximate Subject of Corporeal Qualities.

88. We said that accidents are received in "matter alone," in order to exclude form from the office of partial subject. We now ask whether they are received proximately or immediately in matter. There is no doubt concerning quantity that it immediately inheres in matter. Hurtado, Arriaga, Carleton, and John Baptist de Benedictis, who cites several of the Ancients, assert the same of corporeal qualities. But the common opinion in every school, held by St. Thomas in several places cited by Fr. Suárez, *Metaph.* d. 14, s. 4, teaches that qualities of this kind, at least if vital acts are excepted, are immediately received in quantity, so that quantity is their proximate subject, whereas matter is only their remote or mediate subject and, as it were, the first basis of accidents. Thus, with Fr. Suárez in the cited place, Our Authors Oviedo, Quirós, Rubio, Alphonsus, Peynado, and others commonly hold; and this opinion must be maintained by us.

89. For first, all Philosophers teach that corporeal qualities inhere in substance through quantity, according to the testimony of the Excellent Doctor in the cited place, n. 7. Now "through quantity," although it can be understood in such a way that the reception of quantity precedes as a prior condition, in the way it precedes substantial form, has no reason in the present case not to be taken as the mediation of a proximate subject. For there is no repugnance from any quarter to one accident being received in another, as is clear in the location of quantity, and also in habits and species which are received in accidental potencies if these are distinguished from the soul. Thus, because substantial form is received in matter through quantity, it could rightly be said to be received in quantity as in a proximate subject, unless quantity were proved wholly unfit for this office. Next, it is

commonly asserted that colors are received in surface, and that gravity and lightness are affections of quantity; but chiefly rarity and density, not only formal, or in second act, which consists in actual extension, but also radical, or in first act, which consists in the temperament of heat and cold with other accidents, or, if you prefer, in a special quality. Certainly, if rarity and density immediately inhere in matter, they will confer the formal effects "rare" and "dense" more immediately upon matter than upon quantity, since matter is not incapable of them. But this is contrary to the opinion of all, who derive these effects from quantity into matter, not conversely.

90. Finally, the common opinion is usually proved from the mystery of the Eucharist. For if the accidents of bread do not there inhere in quantity, it follows 1º that the host cannot be heated or impelled by a natural agent, since heat and impulse would have to be produced by God alone through creation. It follows 2º that all the accidents there exist dissolved and unconnected, and that when one moves the others could not move without a new miracle for each. It follows 3º that there is nothing there that is said to become hot, cold, etc., since there is no subject of these affections and no order of denomination. It follows 4º that there is no conflict with corruptive accidents, for every conflict or contrariety of accidents must be exercised about some common subject, as is known. Hence the corruption of the species could not naturally occur there. I grant that in the Eucharist as many miracles occur as are necessary for accomplishing the mystery and concealing it from the senses. But what need, I ask, is there for so many new miracles remote from common judgment? Who is there that expects or thinks of a new miracle when the quantity of bread and wine is heated or cooled, when the sacred species are moved, when they fall, or when they are disposed toward corruption? The whole necessity asserted by the opponents is founded upon the claim that quantity cannot be a subject of qualities, yet no very pressing reason for this is brought forward, as I now show.

91. Objection 1º: matter appears from no consideration to be incapable of immediately receiving qualities, just as it receives quantity. I distinguish: from no consideration constituting an *a priori* reason, I grant; from no consideration constituting an *a posteriori* reason or sign, I deny. For from the mediation of quantity, from its rarefaction and condensation, and from those things which according to common judgment naturally happen to the consecrated species, the reception and inherence of qualities in quantity as in a proximate subject, without the immediate causality of matter, is sufficiently inferred. Consequently matter is not destined by nature for this office, and therefore does not have natural potency for it.

92. Reply: if quantity received qualities, it would in this office be a connatural instrument of matter, and matter would therefore need an instrument in order to receive, certainly under the title of imperfection. Therefore under this title matter would become less receptive of qualities than it would be if it did not act through an instrument, since mediate receptivity is less than immediate. But it is repugnant that receptivity decrease under the title of imperfection, since receptivity is mere potentiality, which is founded upon imperfection. Therefore, etc. I answer: for the reception of qualities matter indeed needs an instrument or subordinated material cause, but not under the title of imperfection alone. For since by that need matter's receptivity and potentiality decrease, its imperfection also decreases. Hence actually existing matter is more perfect than another perhaps possible matter not needing an instrument. But, you ask, does not every need arise from imperfection? It does arise from it as from a proper condition of the subject in need, for nothing needs unless it is imperfect and finite, and therefore God needs nothing; but not as from the sole formal reason why the need is greater or lesser. For within the same genus a more perfect thing can need more things than a less perfect one. Thus the power of a great King is greater and more perfect than that of a father of a household, and yet he needs more ministers, as instruments for governing. Thus also man, though more perfect than a lion, needs many more things, namely clothes, shoes, weapons, etc.

93. Objection 2º: the proper office of quantity is to extend its subject and prevent the penetration of bodies. I grant that this is the better-known and quasi-primary office. But why could its quasi-secondary office not be to sustain corporeal qualities proximately? Objection 3º: qualities dispose matter toward substantial form. Therefore they inhere in matter. I distinguish the consequence: they inhere in matter mediately, I grant; immediately, I deny the consequence. Qualities dispose matter insofar as they both expel accidents contrary to the new form and determine the indifference of matter. They can accomplish both without immediate inherence in matter. The first, because the contrary accidents likewise inhered in quantity; the second, because the indifference of matter is restricted by the very fact that it receives quantity affected by such qualities. For if the indifference of an equivocal agent is limited by dispositions received in the patient, much more easily will the indifference of matter be limited by dispositions received in its own quantity.

94. You will say: therefore matter is not immediately disposed toward form through qualities. I deny the consequence, because no other subject is disposed more immediately. Quantity, being incapable of receiving

substantial form, is in no way disposed toward it. Hence it must be denied that the office of immediately disposing requires immediate inherence. Thus proper qualities immanently dispose substantial form to act *ad extra*, for they do not dispose matter more immediately, since matter is not active. Yet according to the Adversaries they do not immediately inhere in form, but only in matter. Reply: therefore there is in matter a certain immediate formal effect, namely the denomination "disposed," without immediate union with the form from which it comes. I distinguish the consequence: without immediate union by immediacy of inherence, I grant; by immediacy of order, I deny the consequence. For the mediate inherence of the quality, and the quality itself, are immediately ordered to render matter disposed toward substantial form. The Adversaries themselves are bound to say the same in the preceding example of form, which is immediately disposed toward acting through qualities received in matter.

95. Finally, it is objected: the accidents of bread and wine exist without a subject in the Eucharist, which in our opinion is verified only of quantity. I answer: quantity exists there without any subject. The remaining accidents, however, exist without a mediate and substantial subject, to which the name subject "that which" is commonly attributed. Once substance, which is the first basis of accidents, has been removed, these are truly said absolutely to remain without a subject, just as, if a pyramid remained unmoved after its base was removed, all the stones would truly be said to remain without a support, although some rested upon others.

DISPUTATION III.
ON ALTERATION.

CHAPTER I.
Having Briefly Explained the Concept of Alteration, the Intension of Quality Is Discussed.

1. Alteration is usually defined as "motion toward quality." Here "motion" is taken for change, or the transition of a subject from privation to form. Hence the production of a quality in the first instant of the subject's existence is not alteration. The phrase "toward quality" distinguishes alteration from substantial generation and from accretion, or augmentation of quantity, namely by the terminus "to which"; for here this must be "quality," under which name comes every accident that is neither quantity nor a pure modification. Accordingly, "to be altered" is to be otherwise now than before with respect to qualities, or to change one's state of quality, as when a subject passes from hot to cold, or from health to sickness. Alteration is divided 1º into "active," or "in process," which is the very change-producing production of the quality, and "terminative," which is the quality produced in the subject as connoting its preceding privation. It is divided 2º into "purely perfective and corruptive": the former is motion toward a quality lacking a contrary, as the production of light in air; the latter is motion toward a quality with the expulsion of its contrary, as the production of heat in water with the expulsion of cold. This second is what,

in the strictest Aristotelian sense, is called "alteration," and to it especially belongs the character of successive motion.

2. Finally, and this is the third division, three quasi-species of alteration are usually distinguished. The first is called "alteration simply," and is "motion toward a quality in a subject previously possessing a complete privation of it," as when completely dark air is illuminated. The second is called "extension," or "extensive alteration," and is "the motion by which a quality pre-existing in some part of a subject is propagated through other continuous parts of the same subject," as when heat produced by fire in the nearest parts of water is gradually propagated to the more remote parts. The third is called "intension," or "intensive alteration," and is "the motion by which a pre-existing quality is increased and rendered greater in the same part of the subject," as when the same portion of water, already hot, grows hotter. The same will hold if a quality is increased in the same indivisible subject, as grace in the rational soul. Neither extension nor intension, unless the latter consists of heterogeneous degrees, properly varies the species of alteration or of quality, according to the saying, "More and less do not vary the species." Hence extension is better called "an augmentation of quality in new continuous parts of the subject," while intension is "an augmentation of quality in the same part of the subject." To each corresponds its own diminution: to extension, namely, "contraction," by which a quality is contracted from more to fewer parts of the subject; and to intension, "remission," by which a quality decreases in the same part of the subject, as when boiling water becomes lukewarm.

3. The question is in what the intension of a quality consists. All admit that extension consists in the addition of new integral parts of the quality, and contraction in their loss. We are speaking of terminative intension, or of an intensified quality in accomplished being, from which judgment concerning intensive motion or action will readily follow, as also concerning remission, which must be explained in the opposite way. Very many deny that intension occurs through the addition of new parts of a quality in the same part of the subject, or, as we commonly say, through the addition of degree to degree. But in order to explain it otherwise, they reason in various ways and labor intensely.

§ 1. Two Opinions Are Rejected.

4. The first opinion, attributed to some of the ancients, explains intension through a greater expulsion of the contrary quality, so that for a subject to become hotter, for example, is nothing other than for it to lose

more cold. But it is rejected 1º because light is intensified and has no contrary. 2º Because grace, when it first exists, completely expels mortal sin; and therefore, when it is afterwards intensified, it no longer has a contrary to be expelled. This applies especially to the grace of the Mother of God, which was most intense without any contrariety of sin to be expelled from the subject. 3º Because the expulsion of the contrary follows by natural necessity upon the primary effect of the form as a secondary effect. Therefore, as soon as the form exists and communicates its primary effect, it necessarily expels the contrary as far as it can. 4º Because, if cold is driven out gradually by heat, or not all at once, then it is partly driven out and partly remains; therefore it has parts from which its intension was constituted, and by whose diminution it is remitted.

5. The second opinion is that of Durandus, who, with certain others, holds that in intension the remitted quality is completely destroyed and a new indivisible quality, more perfect than the preceding one, is produced; and that the same occurs conversely in remission. But it is rejected 1º because grace is not destroyed except by mortal sin; therefore, while it is intensified, the preceding grace is not destroyed, since no sin intervenes there. 2º Because a remitted habit is intensified by an act in the instant in which it produces that act; but in that instant such a habit does not perish, otherwise it would physically cause the act when it does not exist. Therefore. 3º Because remission does not occur through destruction of the whole pre-existing quality and production of a new, less perfect one. The antecedent is proved: because when boiling water begins to become lukewarm, there is no cause by which a new heat is produced after the former has been destroyed: not the water itself, as is clear; not the fire, which I suppose to have been removed or extinguished; not the surrounding agents, which can be exceedingly cold, such as snow or ice; finally, not the first cause, because no requirement precedes on the part of the subject or of another created cause; and because it would follow that a vicious habit, for example of lying, when remitted, is produced by God alone apart from any requirement of the creature, which is absurd. Add that the water ought at the first onset to recover the highest degree of cold, since at the first onset it expels the entire contrary quality.

6. 4º Because it is highly incongruous and contrary to all Philosophers to deny generally true and proper intension in qualities. Yet this is precisely what Durandus's opinion does. For to be intensified is for a pre-existing quality to be increased, perfected, and rendered greater in the same part of the subject; but this cannot properly be verified where the pre-existing quality is wholly destroyed, for what is removed and completely vanishes in

order to yield place to another is not increased, perfected, or made greater. Certainly it cannot be denied, consistently with the teaching of the Council of Trent, sess. 6, c. 10 and can. 32, that grace and the virtues are truly and really increased in us. Add that according to this opinion there will also be intension in substantial form, although all unanimously deny that substance can be intensified. The consequence is clear: for when the form of the embryo is expelled and the soul introduced, nothing is lacking for Durandian intension. *One may say* that the specific agreement of the two forms is lacking. But against this: not even the new quality according to Durandus can be of the same lowest species as the preceding quality, both because nothing is corrupted by what is similar to it and because one indivisible quality intrinsically and notably more perfect than another cannot fail to differ from it by more than number. But if agreement in a subalternate species suffices, in this way intension will also be possible in substance, if, namely, a purely vegetative soul is driven from the subject by a sensitive soul and the latter by a rational soul, as many think occurs in the formation of man.

7. *Objection 1:* when a bow is tightened and relaxed, it loses its former location and acquires a new one. I grant this; but that is not properly intension or remission, but greater or lesser tension and compression, consisting in a certain variation of extension, which forces the parts to change place and consequently location. *Objection 2:* intension is a transition from a lesser to a greater quality; therefore the lesser or remitted quality, since it is the terminus "from which," ought to perish. I press the point by appeal to the augmentation of quantity or fire and to the nutrition of living things, which is likewise a transition from lesser to greater, yet does not destroy the terminus "from which" in the sense of the objection. Accordingly, the terminus "from which" of intension is not the remitted quality taken specifically and as regards what is positive, but the quality precisely as remitted, or as regards the lack or privation of increase; and this privation certainly perishes through intension.

8. *Objection 3:* vital acts, such as intellection and love, are intensified only by the arrival of a more perfect act after the less perfect one has been destroyed; therefore the same must be held of other qualities. I answer: the antecedent is quite commonly supposed by authors to be false, especially by Fr. Suárez, d. 46, Met. s. 2, n. 13. But even if it is true, only this follows from it: that vital acts are not properly intensifiable. This is not absurd from the very terms, for intensive latitude is not a property of all qualities, as Fr. Suárez proves and teaches to be certain, cit. sect. 2, n. 10. Yet the

consequence of the objection is absurd, since it is most certain that many qualities are capable of true and proper intension.

9. But on this occasion one may ask in passing whether it is in fact true that vital acts admit no intension other than an improper and Durandian one. Most of the more recent authors affirm this; Fr. Peynado cites and follows them here, tr. 1, d. 1, n. 60. They prove it because the greater clarity of one cognition than another does not consist in a composition of degrees, but in a specifically indivisible mode of tending. Hence intuitive cognition, however remitted it may be posited, always surpasses abstractive cognition of the same object in clarity, however intense the latter may be. So too efficacious love surpasses inefficacious love, not by a real addition, but by its mode of tending; and by this same principle an absolute judgment differs from a conditional judgment, and a disjunctive from a determinate judgment. But this proof has little force. For although intuitive cognition does not differ merely by degree from abstractive cognition, because it belongs to a different genus or adequate species, what prevents each from growing and being increased gradually within its own line? Certainly among intuitive cognitions it commonly happens that some are clearer than others. Similarly, grant that efficacious and inefficacious love differ by more than intensity, as also do the judgments just mentioned; from what do you prove that efficacious loves, one of which is more fervent than another, differ by more than intensity? Or absolute judgments, one of which is more vivid than another?

10. For this reason the older authors hold the negative position, although they rather suppose than prove it. To me, however, the affirmative seems preferable. First, because it has pleased almost all who have examined the matter expressly. Second, because in spiritual accidents the presumption stands for indivisibility and complete simplicity unless the contrary is established, so that in this way they may approach more closely to the character of the substance in which they inhere. But there is nothing from which the contrary is established in intellection and love, as it is established in grace and habits, concerning which there is no doubt that they are truly and properly increased in the same subject. Accordingly, the intension of vital acts, at least spiritual acts, is improper and signifies nothing other than this: one wholly simple act, compared with another adequately distinct act of the same line in respect of clarity or fervor, is more perfect than it by its indivisible nature. In this sense even Divine cognition is usually said to exceed all created cognitions in intensive perfection, and one Angel is said to be intensively more perfect than another, where it is certain that there is no

proper intension as this is understood here, namely insofar as it implies a true augmentation of a pre-existing form in the same subject.

§ 2. The Opinion of the Thomists and Its Various Explanations Are Attacked.

11. The opinion of the Thomists is that a quality, when intensified, is in no way increased according to its entity, but that its intension consists in a greater rootedness of the quality itself in the same subject; for thus the quality actualizes the subject more and denominates it more perfectly, although the quality itself is indivisible with respect to intension, or lacks intensive parts. But when it is asked what this greater rootedness is, the Thomists divide into many and various explanations. The first says that it is a new and more perfect existence of the quality. The second, a greater eduction of the same quality. The third, a greater inherence, or a more perfect union of the quality with the subject. The fourth, a peculiar mode called "the mode of greater rootedness," since it has no other office. The fifth, the termination of the same quality according to greater *esse in* the subject. The sixth, that it imports nothing distinct from the pre-existing quality, but is preserved through extrinsic connotations alone.

12. But first, nearly all these explanations are rejected by a common argument. For when a new existence, new eduction, and so forth arrives, it either destroys the preceding one or is conjoined with it. If the former is said, one falls into the opinion of Durandus and will be attacked by the same arguments, especially that taken from the remission of heat in water. If the latter, one admits in existence, eduction, and so forth an addition of degree to degree, which one so greatly avoids in quality, and in which one's own arguments are manifestly broken. All are also rejected, without exception, because according to St. Thomas, II-II, q. 24, a. 4, ad 3, charity, and the same holds of other qualities, "is increased essentially, is increased according to essence," when it is intensified. But no one of the aforesaid explanations verifies an augmentation of this kind. Proof: that which is increased only accidentally is not increased essentially; nor is that increased according to essence which is increased only according to something adequately distinct from essence. But, given the preceding explanations, a quality is increased only accidentally and according to something adequately distinct from essence, as will be clear to one who considers the matter. Therefore, etc.

13. Next, those explanations are rejected individually. The first is rejected. First, because it falsely supposes a real distinction of essence from existence. Second, because an augmentation of existence is unintelligible

unless the essence is increased. For the entire office and formal effect of existence is to render essence formally placed outside its causes and drawn out from nothing, or from the state of pure possibility. But if an indivisible essence has once truly been placed outside its causes and drawn out from nothing, how can it be placed or drawn out more, unless perhaps, notwithstanding its indivisibility, it is partly outside and partly within its causes, or partly something and partly nothing?

14. The second is rejected. First, because, since every eduction implies the existence of the terminus, a greater eduction must naturally imply a greater existence of the terminus; hence this explanation falls back into the preceding one. Second, because that greater eduction supposes its terminus already educed, and indeed wholly, since it is indivisible; it supposes, I say, the terminus to have been educed by a total action, since the prior eduction was sufficient for the existence of the same terminus. Therefore the greater magnitude of the new eduction cannot but be wholly useless and consequently naturally impossible. Here the Thomists can be answered by the argument with which they themselves in the *Physica* reject the influx of two total causes upon the same effect, namely: "What is wholly educed cannot be educed more," etc. Add that a connatural eduction is specified either solely or principally by its terminus; therefore a more perfect eduction ought to correspond to a more perfect terminus.

15. The third is rejected. For 1º there is no reason why a quality, when it first exists, should not acquire the greatest union of which it is capable and immediately appear most intense, because both the quality itself and the subject have an innate inclination toward such union; and, moreover, many qualities are hindered by no contrary, as light, which lacks a contrary, or grace, which excludes its contrary in its first production. 2º It is highly incongruous that the grace of the Mother of God, indeed even that of the humanity of Christ the Lord, prescinding from actual union and inherence, should not be more intense and perfect than the grace of any newly baptized child. 3º Although unions of the same form can, at least by Divine power, be diverse and unequal in other predicates, nevertheless an informative union cannot increase or diminish in the being of union and communication if the form is the same and the subject the same. Therefore it cannot depend upon such union that the form actualize and denominate the subject more or less. The antecedent is proved: first, because every informative union is the ultimate determination of a form for actualizing a subject; therefore it leaves in the form no indifference determinable by a greater union, just as location, because it is the ultimate determination of a body for being in place, leaves in it no indifference determinable by a greater location with respect to the

same place. Second, because informative union in the being of such is specified by its extremes and derives its entire perfection from them; therefore there is nothing from which it may increase or decrease while the extremes are entirely the same. I omit that, according to most Thomists, union is not distinguished from the extremes.

16. The fourth is rejected because, if that mode is a mode of greater rootedness, it renders the form more rooted in the subject, and therefore also more communicated or united; nor can "rootedness" signify anything else here. Therefore that mode is in reality a greater union and is subject to the attacks of the preceding number. Or, if it is not union, since it is neither form nor subject, it cannot increase the formal effect of the form and render the subject, for example, hotter; for a formal effect cannot be increased by anything distinct from all its constitutive elements, which are form, subject, and union. Hence the fifth is also rejected. For that termination, which certainly must be some mode, since it is neither a quality nor a part of a quality, if it makes the form have greater *esse in* the subject, is nothing other than greater inherence, and therefore greater communication or greater union, which has just been attacked. Or, if one wishes inherence to be distinguished from union, it will not pertain to the constitution of the formal effect and therefore cannot increase it, from what has just been said. Add that greater inherence is a greater eduction, or presupposes it; hence it can be attacked from n. 14.

17. The sixth is rejected because we have abundantly rejected the doctrine of extrinsic connotations both in the Logic, where we treated Relation, and in the *Physica*, where we treated Union as distinct from its extremes. And indeed, who can conceive that a formal effect, for example "hot," is really and intrinsically increased or diminished with no constitutive element of it increased or diminished? Or that water acquires nothing intrinsic when it grows intrinsically hot to the point of boiling? Or loses nothing intrinsic when from supremely cold it becomes intrinsically lukewarm? Or that cold as eight is not really distinguished from cold as one? Is not intension, according to all, a real motion and a real action? What terminus, then, does it have? Is not a hand intrinsically changed while being heated and does it not pass into a new state? How, then, can intrinsic transition and change be given through extrinsic connotations alone? Can a just man pass gradually from one degree of grace to the holiness of St. Francis without acquiring anything intrinsic anew? These things certainly show sufficiently how great the difficulties pressing upon that sixth explanation of Thomistic rootedness are. But besides this, both it and all the others can be rejected from what will be said in the following section.

§ 3. The True Opinion Is Proved and Defended.

18. Our true opinion is that intension occurs through the addition of new parts of a quality in the same subject, or, as we commonly say, through the addition of degree to degree; for parts of a quality according to intensive increase are called "degrees." For clarity, authors determine these degrees by the number eight, so that the highest heat, for example, is heat "as eight," and the least heat is heat "as one." For although the highest heat, as regards intensive latitude, is a certain permanent continuum and is composed either of parts divisible without end according to Aristotle, or of almost innumerable indivisible points according to Zeno, nevertheless, to avoid confusion, in imagination we divide the highest heat into only eight determinate parts, as when we mentally divide a line into eight palms, or as Astronomers divide the equinoctial line into 360 degrees.

19. Moreover, natural qualities, to note this in passing, have a fixed terminus of intension which they cannot naturally exceed in the present order of things. This is usually proved first from the limitation of natural agents, whose power cannot proceed to infinity. Second, from the fact that all or almost all qualities are dispositions or properties of some substantial form, for whose sake they exist; hence they cannot exceed the limits required by that form, possible according to the present order of things, to which they are principally due. Yet if there existed other more perfect forms and active powers, nothing on the part of qualities would prevent greater intension. Hence their natural measure should be taken rather from what is extrinsic than from what is intrinsic to the qualities themselves. This is all the more true in supernatural qualities, such as grace, charity, and so forth, for these by their own nature can admit as many degrees as it may please God to produce. In relation, however, to the absolute power of God, the intension of any quality can increase to infinity syncategorematically, because no contradiction follows from this. As regards remission, given an Aristotelian continuum, a quality lacking a contrary can be remitted more and more without limit, not only by Divine power but also naturally; for whatever slight portion is designated, a slighter can always be designated in which nothing prevents the natural conservation of light, for example, if an agent is not lacking. A different judgment must be made of a quality having a contrary, which, if it is remitted too much, is easily overcome. But given a Zenonian continuum, the final terminus of remission will be an indivisible

point, and a quality lacking a contrary can naturally reach it; but a quality subject to contraries cannot, for the reasons just given.

20. Our opinion concerning intension, therefore, expressed in n. 18, which is held by the Scotists with St. Bonaventure and Scotus, the Nominalists with Ockham, and our authors with Fr. Suárez, d. 46, Met. s. 1, to whom are added Aversa, Spinula, Murcia, and several others, may be considered sufficiently proved by the refutation of the others. But it is further proved thus. When heat, for example, is intensified, the subject becomes hotter; but it cannot become so without an addition of heat or of a new part of it. Therefore a new degree of heat is then superadded. The minor is proved 1º: a subject cannot be rendered hotter except by greater heat; for as heat simply is required for something to be hot simply, so greater heat is required for it to be hotter, according to the proverb, "As the simple stands to the simple, so the more stands to the more," which, if ever, must hold here. And usage itself speaks this way: who would not call intense heat "greater" than remitted heat? But heat does not become greater heat without the addition of a new part of heat, as is clear from the example of any things that become greater, such as a man, tree, fire, or house. Therefore, etc. Indeed, how can something become greater in any line when nothing is added to it in that line? *One may say:* greater rootedness is added to the heat. Against this: rootedness is neither heat nor a part of heat, or, if it is, we have what we intended. Therefore it adds nothing in the line of heat; consequently, although it renders the heat more rooted, it does not render it greater. Certainly, according to the adversaries, rootedness itself cannot become greater without the arrival of new rootedness; therefore neither can heat become greater without the arrival of new heat.

21. 2º A subject cannot become more quantified, more located, more united, more extensively hot, without an addition of quantity, location, union, and heat; therefore neither can it become more intensively hot without an addition of heat. For why should the otherwise general rule not hold here, that no denomination or formal effect increases in the character of such without an increase of the form from which it proceeds? *One may say:* a formal effect can also increase from an increase of union. I grant this, but never without an increase of the form, without which informative union cannot increase, from n. 15. Confirmation 1º: a quality, while being intensified, is truly increased and receives a true augmentation of itself, both because intension signifies the same as augmentation of a quality in the same subject, and because concerning the intension of grace in a just man this is certain from Trent, sess. 6, can. 32, which defines that a justified man through works done according to God "truly merits an increase of grace."

But "augmentation" of any thing signifies the accession of a new part of the same thing, as is clear in augmentations through generation of additional parts, nutrition, accretion, and extension of quality. Therefore, etc.

22. Confirmation 2º: according to the Council of Trent, sess. 7, can. 7, grace is given through the sacraments of the new law "always and to all" who receive them rightly; therefore grace is given through the sacrament of the Eucharist to a just man just as truly as it is given through the sacrament of Penance to an attrite sinner. But an absolute quality of grace is given to the attrite sinner, and not merely some mode distinct from grace; therefore the same is given to the just man, in whom grace is consequently rendered more intense through the addition of degree to degree, or of grace to grace. The point is pressed: when a new rootedness of grace, whatever it may consist in, is given to a just man through a sacrament, either it is truly and properly grace or it is not. If it is not, then if only a new rootedness is given, the definition of the Council will be false in the true and proper sense. But if it truly is grace, then, since it does not destroy the preceding grace, as the Thomists admit against Durandus, grace is truly added to grace in the just man; and for the same reason an addition of heat to heat must be admitted, and similarly in other qualities, since the new rootedness must likewise be truly and properly heat, and so forth.

23. Confirmation 3º: an intense quality is more active than a remitted one, as we experience in light, heat, and others, and as St. Thomas teaches, II-II, q. 24, a. 4, ad 3. Therefore, while a quality is intensified, it acquires something of active power which it did not have before; therefore it acquires something of its own entity, for active power is not distinguished from the entity of the quality, even among Thomists. Finally, confirmation: a quality is intensified only by an agent which virtually precontains its entity, and precisely insofar as it precontains it, as is certain. Therefore an agent, when it intensifies heat, for example, acts as precontaining the entity of heat and exercises a fecund power of heat as such. But this power is exercised only by producing heat. Therefore heat is then truly produced. Yet precisely the pre-existing heat is not produced, both because this can be supposed to be conserved by another cause and because it cannot be intensified by a merely greater eduction of itself, from what was said in n. 14. Therefore a new entity of heat is produced which is superadded to the preceding one.

24. The point is pressed: heat is intensified only through heating; for fire does not make water boil except by continuing the heating. But heating is an action productive of heat. Therefore, etc. The point is pressed again: according to all, more heating power is required in the agent to intensify than to produce remitted heat for the first time. Therefore intensive action

does not produce only a greater rootedness of heat. The consequence is proved: because greater rootedness, whatever kind of mode it may be posited as, is not heat, otherwise heat would already be added to heat; nor is it anything more perfect than heat, indeed not even equally perfect, since every natural mode is less perfect than the absolute thing which it modifies. But it is repugnant that the production of a terminus which is not heat, but some I know not what more ignoble than heat, should require more heating power in the agent than the production of heat, as appears evident of itself.

25. *Objection 1:* according to Aristotle, IV *Physic.*, t. 84, "From the hot there comes to be something hotter, with nothing in the matter made hot"; therefore with no heat newly produced in the matter. I answer by denying the consequence, for Aristotle's clear meaning is that by intension no part of the matter becomes hot which was not truly hot before; otherwise there would be not so much intension as extension. Hence that text continues: "with nothing in the matter made hot which was not hot when it was less hot." This is entirely true, but it does not prevent the same matter, already hot, from becoming hotter by the addition of heat. Hence St. Thomas, explaining that text, lect. 14, litt. K, says that "the prior heat is joined by the later."

26. *Objection 2:* the authority of St. Thomas, who often teaches that intension does not occur through addition of form to form, for example charity to charity or whiteness to whiteness, but through a greater rootedness of the same form, insofar, namely, as the quality has more *inesse* and inheres more in the subject, and begins to have greater being in it, or insofar as it is educed from the subject from imperfect act to perfect act. And in Opusc. 48, tr. 2, c. 4, the Holy Doctor expressly denies that intension occurs through addition of degree to degree. I answer: that the Angelic Doctor is in fact on our side is argued with sufficient probability by Fathers Rubio and Alphonsus, and especially by Fr. Hurtado, disp. 5, *De Generat.*, sect. 5, where he adduces Cajetan's testimony quite clearly declaring that our opinion and that of St. Thomas differ only in words or manner of speaking. Accordingly, when St. Thomas denies addition of "form to form," he is speaking of forms complete in their own being, or not mutually coordinated to constitute one complete form, because at that time the name "form," and understand the same of the name "charity," etc., was not in common usage indifferent to a total and partial form, as also happens even now in certain substantial forms. For no one says absolutely that in the nutrition of a tree, or even of a lizard or snake, form is added to form, or soul to soul, although it is certain even among Thomists that a partial form, or a part of the soul, is then added.

27. *One may say:* the opinion which at that time asserted addition of form to form was speaking of forms united in the same subject, precisely of partial forms. Grant this; but it used a manner of speech then unusual and suggesting an absurd sense, and was therefore rejected by St. Thomas, just as today one would reject someone who said that in a tree or a snake nutrition occurs through addition of tree to tree or snake to snake, although he intended only to signify the addition of new parts. Today, however, that manner of speaking is quite commonly understood of partial forms, as when we say, for example, that in a fevered person placed under a burning sun heat is added to heat, and that in a room, if a new candle is brought in, light is added to light; likewise grace to grace in a just man, in a manner of speaking consonant with Trent, as we saw in n. 22. Hence St. Thomas would not reject this manner of speaking today; indeed, he did not reject it even in IV *Physic.*, as is clear from the words cited in n. 25. The Holy Doctor approves our meaning in III, p. q. 7, a. 12, where he plainly supposes a plurality of degrees in grace and heat: "a degree of heat as two," says Cajetan in I-II, q. 52, a. 2, "is a certain heat, and so of the others." He approves the same in II-II, q. 24, a. 4, ad 3, teaching that a quality, when intensified, is increased according to essence and according to active power.

28. St. Thomas indeed teaches in the same place that for a quality to be increased according to essence is nothing other than for it to have more *inesse* in the subject, which is to be more rooted in it, namely because "the being of an accident is *inesse*." But he is not speaking immediately of formal *inesse*, or of inherence in second act; for the essence of an accident does not consist in this, since it can be really separated from it, as is clear in the Eucharist. If one refuses this, answer this argument: that the being of an accident is *inesse* does not prove that in intension the entire essence of the preceding quality is destroyed and a new one produced, although according to the Thomists the whole preceding rootedness and whole preceding *inesse* are destroyed and a new one produced, lest otherwise rootedness consist of degrees, and indeed heterogeneous ones. Therefore neither does it prove that the essence of the quality is increased merely because its *inesse* is increased. Answer likewise this other argument: that the being of an accident is *inesse* does not prove that Eucharistic quantity is destroyed according to essence when it is destroyed according to *inesse*. Therefore neither does it prove that a quality is increased according to essence when it is increased according to *inesse*. The Angelic Doctor, therefore, is speaking of "*inesse* and being rooted" in first act, or in requirement, which is the very essence of the quality itself, incapable of being increased except by addition of its parts. Mediately, however, or by consequence, he also speaks of formal

inherence and rootedness, which is indeed greater in proportion as it unites more parts of the form to the same subject. In this sense, therefore, we acknowledge the expressions of St. Thomas to be true, namely that a quality is intensified insofar as it is more rooted in the same subject, has more *inesse*, begins to have more being, and is more educed from imperfect act to perfect act; for all these are verified by the fact that the quality begins to have being, and so forth, according to new parts of itself. It would certainly be strange if, according to St. Thomas, that began to have more being which is already wholly in the nature of things. Nor should Opusc. 48 move one, both because it is numbered among the doubtful works of St. Thomas and because a plurality of degrees is expressly admitted there, and it is only denied that they are designable, namely by us, who cannot distinguish one from another by sense.

29. *Objection 3:* two degrees of heat are either similar or dissimilar. If the former, they cannot be conjoined, because two accidents differing only numerically cannot be in the same subject. If the latter, one quality will not result from them, just as neither does one quality result from whiteness and sweetness. I answer that they are dissimilar in some respect, as we shall say in the following question, where we shall dissolve this objection. But now, granting similarity and that two accidents differing only numerically cannot be conjoined in the same subject, I distinguish thus: when they are complete, or not mutually coordinated to integrate one whole, let it pass; when they possess this coordination, I deny it. Nor is an accident individuated by the subject except extrinsically, or as regards us, as we shall show elsewhere. *Reply:* therefore, if God conjoined several parts of quantity in the same subject, there would be intension of quantity. I turn the argument back: therefore likewise there would be intension if God bestowed a greater union in the same subject upon quantity or substantial form. Besides, I deny the consequence, both because parts of quantity are by their nature not apt to perfect the same subject together, but of themselves require distinct and mutually impenetrating parts of the subject; and because the formal effect of quantity does not admit more and less in the same subject. *Reply* again: therefore at least the parts of union by which the rational soul is united to diverse parts of the body will cause intension of union in the soul, since all are conjoined in it. But again I deny the consequence, both because union is not received in the soul according to the common opinion and because those parts denominate the soul more united only extensively.

30. *Objection 4:* essences consist in an indivisible; for they are like numbers, which are varied by any addition or subtraction. Therefore the essence of heat, for example, suffers no addition or subtraction; otherwise

the essence of intense and remitted heat will not be the same. Confirmation 1º: that heat becomes intense which before was remitted; therefore that very heat which was remitted exercises the formal effect of intensely hot. Confirmation 2º: an accidental form is pure act; therefore it is free from composition. This has especially great force in grace, which, since it is a participation in the Divine nature, ought to imitate its simplicity. Add that otherwise remitted grace will be more perfect than intense grace, since it is less composite and therefore approaches more closely to the simplicity of God.

31. I answer the objection: essences consist in an indivisible, not as regards physical integrity, as is evident in the essence of a tree and in any other material essence, but only as regards essential predicates expressed through the definition, because by adding or subtracting any one of them the essence is another, at least inadequately, just as the number is another when any unit is subtracted or added. Therefore the essence of intense and remitted heat is not the same as regards physical integrity, although it is always the same as regards the metaphysical predicates by which it is defined under the concept of heat as such. This one can easily perceive from the example of a young and a fully grown tree. Observe, however, that an addition can be integral in relation to one concept and essential in relation to others. Thus the addition of a palm to a line one palm long is integral with respect to the concept "line," and essential with respect to the concept "line two palms long." Therefore, although the addition of a new degree is purely integral in relation to the concept "heat," it can be essential in relation to the concept "heat as eight" or "as four," by which the essence of heat is already expressed precisely as increased. Observe further that heat is increased according to essence, which not even a Thomist will deny unless he opposes St. Thomas, insofar as it is increased according to its own entity and in such a way that the added parts possess the true essence of heat, just as the preceding parts do. Yet this augmentation is not called essential but integral, because it does not cause heat to verify the name and definition of heat as such more fully. Hence intense heat is greater, but not "more heat," if this signifies that the name heat belongs to it more properly. Thus a fully grown tree is greater, but not more a tree, than a young one. The subject, however, is said to be hotter, because it could not be said to be greater unless it increased in its own entity, which the name "hot" imports directly. Provided the matter itself is established, however, speak as you please.

32. To confirmation 1º, I distinguish the antecedent: it becomes intense through addition of degrees, I grant; without such addition, I deny the antecedent. Then I distinguish the consequence: that very heat separately

from the superadded degrees, I deny; together with the new degrees, I grant the consequence. And I press the point from the extension of heat: for that heat becomes extended which before was contracted, etc. To confirmation 2º, I deny the antecedent, because not every accidental form is pure act in such a way as to exclude integral composition, which is manifest in quantity and in extended quality; nor in such a way as to be purely form, possessing nothing of receptive potency, since quantity receives qualities, just as the intellect and will, which are accidental forms according to the Thomists, receive acts and habits. *One may say:* at least an accidental form is pure act so that it does not consist of parts united among themselves as act and potency, in which manner the degrees of intension would be united if they existed. But I ask: why can the degrees not be united by a continuative union? Because, one says, such union is proper to quantity and to a quantified thing. I agree, if the discussion concerns a continuative union requiring mutually impenetrating extremes. But why is another species of continuative union, importing penetration of the extremes, repugnant? According to the Thomists, is not intension a continuous motion? Therefore in it there is continuity of parts, which, since they are in the same subject, is not extensive continuity. Besides, even if the degrees are united as act and potency, so that each is simultaneously potency and act with respect to diverse things, what follows from this?

33. What was added concerning grace in n. 30 is of no weight, for with equal force it proves that grace ought to imitate other perfections of the Divine nature and therefore ought to be infinite, substantial, incapable of reception, incapable of intension, and so forth. Grace, therefore, is a participation in the Divine nature because it sanctifies, because it is opposed to sin, because it roots supernatural operations of understanding and loving, and because it confers a right to glory. For the rest, since it is properly intensifiable, it cannot imitate Divine simplicity. Nor will remitted grace therefore be more perfect than intense grace, because although a simpler, or less composite, thing is more perfect when other things are equal, the contrary occurs when other things are unequal; otherwise prime matter would be more perfect than a whole lion or a whole man, and a point of matter more perfect than the whole World.

34. Finally, a manifold example is objected to prove that the same form can, according to variation of union and circumstances, exercise diverse formal effects, and sometimes exercise some and sometimes restrain them. For 1º the rational soul renders the eyes, but not the ears, capable of seeing. 2º The same quantity, with no part of itself superadded, renders a rare body more extended. 3º The same visual species received in air does not

denominate it proximately apt to see, as it does the organ of sight. 4º The same subject, although already wholly actualized, can be actualized more and more without an addition of actualizable potency. 5º The same efficient cause, according to variation of action and application, produces diverse effects. 6º Habitual grace does not give Christ the Lord the denomination of adoptive Son of God which it gives to a mere man. But all these things are brought forward beside the point, since none of them proves that the same form, remaining unchanged in itself, can in the same subject exercise now a greater and now a lesser formal effect solely through variation of union.

35. To 1º: the rational soul does not render the eyes more "animated" than the ears. But the denomination "capable of seeing" does not proceed in the organ of sight from the soul alone, but simultaneously from accidental dispositions. And although the union of the soul may be diverse in the eyes and ears, which many deny, it is nevertheless not greater in the being of informative union; otherwise the soul would be capable of intension, since it could be more and more united or rooted. It may, however, be diverse or more perfect in the requirement of dispositions. To 2º: in a rare body the denomination "more extended" proceeds formally from location as from a form, which is necessarily greater in its entity; hence the example is turned back. Radically, however, it proceeds from quantity, not alone, but insofar as conjoined with a certain quality or temperament, without the real addition of which greater extension does not result. To 3º: air is not a subject capable of that denomination, however much the species may be united or rooted more and more.

36. To 4º: although the same subject can be actualized more without addition of actualizable potency, it cannot be so without addition of an actualizing form, which addition is required and suffices for the formal effect of "being actualized" to increase. It will be pressed: the same subject, although wholly actualized, can be actualized more; therefore the same form, although wholly actualizing, can actualize more. I distinguish the antecedent: it can be actualized more by the same unchanged form, I deny; by a new form or part of a form, I grant the antecedent. Then I distinguish the consequence: the same form, not increased in itself, can actualize a new subject or part of a subject more, let it pass; the same subject unchanged in itself, I deny the consequence. It is enough for us that the formal effect and the very "being actualized and actualizing" cannot increase unless either the form or the subject increases. Since in the present case the subject is supposed not to increase, it remains that the form must increase. And the example is turned back: for passive potency, because it is not increased in itself, does not become more intense, however much reception and passion

are increased. Therefore neither will a form become more intense, if it is not increased in itself, however much union and rootedness are increased.

37. To 5º: variation of action or application does not conduce to a new or greater effect unless it places in the nature of things a new or greater entity, distinct from itself, in which the novelty or magnitude of the effect consists. But the variation of union or rootedness asserted by the Thomists places no entity distinct from itself. Hence this example too is turned back: for variation of action does not vary the effect of a formal cause, as is clear in Eucharistic quantity; therefore neither will variation of union alone vary the effect of a formal cause. To 6º: Christ the Lord is not a subject capable of that denomination, since it requires a person foreign to the one adopting. Hence this does not proceed from a defect of rootedness, which certainly is not lacking in the grace of Christ.

CHAPTER II.
Whether the Degrees of Intension Are Homogeneous or Heterogeneous.

38. Given a latitude of degrees in intense qualities, there remains among authors the proposed question concerning the character or nature of such a latitude, and it is celebrated. There are two principal opinions. The first asserts that the degrees are homogeneous, that is, entirely similar to one another and requiring no order among themselves by their own nature, so that what is now produced as the first could have been the eighth, or conversely, and so of the rest. Thus the Scotists cited by Pontius, and among our authors the Fathers of Coimbra, Vázquez, Arriaga, Quirós, Ulloa, and others. The second establishes heterogeneous degrees, that is, dissimilar degrees which by their own nature observe a definite order among themselves, so that what is first could not naturally have been second, nor the latter first; rather, the second by its own nature presupposes the first in the subject, the third the second, and so of the others. Thus the Excellent Doctor, d. 46, Met. s. 1, from n. 30, whom Fathers Hurtado, the Complutenses, Cardinal de Lugo, Téllez, Alphonsus, and others follow, whom Fr. Peynado cites and follows, tr. 1, *De Gener.* d. 2, n. 5. Other authors follow a middle way. Some acknowledge heterogeneous degrees only in qualities operative of other similar qualities, others only in qualities having a contrary. There are also others who, with Fr. Lynce, judge this problem to be an idle question and strive to solve the arguments on both sides.

39. To me, indeed, the opinion of the Excellent Doctor seems preferable. It is proved 1º generally. If the intension of a quality occurs through

homogeneous degrees, those same degrees will of themselves be indifferent to causing either intension or extension, so that it will be accidental to them whether they are first produced in the same part or in several parts of the subject. But this is false. Therefore intension does not occur through homogeneous degrees. The adversaries freely grant the major. The minor is proved: because if the major is true, the same degrees will be naturally indifferent to being united among themselves by intrinsically diverse unions, namely intensive and extensive unions, which certainly possess intrinsic diversity, since one intrinsically requires penetration of the extremes, the other their non-penetration. I suppose, with most of the adversaries and with common Philosophy, that the degrees of intension are united among themselves not only mediately, or by reason of the subject, but also immediately, the second to the first, the third to the second, and so forth; for otherwise an intense quality could not be said to be one essentially, or a continuous whole. But such indifference of the degrees toward intrinsically diverse unions is impossible. Therefore. The minor is proved: because unions, at least natural unions, cannot be intrinsically diverse without some diversity of the extremes by which they are specified. For this reason authors on the contrary side in the present dispute reject the diverse Thomistic rootednesses, as we saw in the preceding chapter. Therefore, if the extremes, namely the degrees of quality, have no diversity or distinction, a natural indifference in them toward intrinsically diverse unions is repugnant. Certainly, according to the opponents, an informative union cannot be varied without variation of the subject, the form, or both. Therefore neither can a continuative union without variation of its extremes, since the same reason holds in both cases.

40. Confirmation: intension cannot arise from wholly similar forms concurrently existing in the same subject. Proof: because the subject cannot properly be rendered more perfect and better affected by them, although it may be rendered affected more times. This is clear from examples. For 1º if the same object is simultaneously seen by eight weak-sighted or half-blind persons, it is not seen more intensely or clearly than by one of them, nor so clearly as if it were seen by a keen eye through a vision clear as eight. Similarly, the same object explained simultaneously by eight expressions signifying the same thing in the same manner is not explained more clearly than by one, nor is a man rendered more articulate or eloquent by the mere multiplication of expressions of this kind. Likewise, Peter, knowing eight men simultaneously through eight cognitions each clear as one, is not thereby rendered a clearer or more vivid knower than by one of them, nor so clear a knower as if he knew one man with clarity as eight. Nor does it

matter that a vital act does not admit intension properly and formally; for it admits it at least equivalently or virtually, which suffices for the perfection of formal intension to which it is equivalent to be investigated from comparison with it. Nor again does it matter that the aforesaid visions or cognitions are not united to one another, both because, even if one feigns them united, the same result is found, and because, given the principal foundation of the contrary opinion, concerning which below, n. 58, nothing else is required for intension than that several similar forms affect the same subject; for thus they will render it more affected, not extensively, therefore intensively.

41. 2º Everyone will say that crystal A, luminous as eight, is more beautifully and perfectly illuminated than crystal B, eight times larger but luminous as one; and yet in the number of degrees or parts of light both are equal. Therefore eight parts of light as one are not equivalent in the power of perfecting a subject to eight degrees of intense light. Hence a special perfection must always be acknowledged in intension by which it surpasses extension of the same remitted quality, even though the number of parts and unions is equal in both. *One may say:* the special perfection of intension consists precisely in this, that parts of a quality conjoined in the same subject operate more strongly and resist contraries more powerfully, because, as they say, "united power is stronger," both for acting and resisting. Against this: first, because in intension a special perfection must be acknowledged in the order of perfecting the subject, as is clear in the example given. Second, because greater readiness for acting and resisting, taken from a greater conjunction of power, is not the special perfection of intension, since it can belong also to extension, not only by Divine power if the parts of the subject are made to penetrate one another, but also naturally through condensation of the subject. For it is certain that a quality of the same degree acts and resists more strongly in a dense subject than in a rare one, yet condensation is not intension.

42. 3º If God conjoined several parts of the form of fire in the same part of the subject, the fire would not become more intense, nor would the subject be rendered more intensively ignited, although it would be ignited several times. *One may say 1º:* substantial form is not capable of intension. I grant this; but from your opinion an absurd capacity follows, since in substantial form there can be found the same reason by which you say quality is intensifiable, namely because several entirely similar parts of it can be conjoined in the same subject. *One may say 2º:* intension requires a natural capacity of similar parts of a form to be united simultaneously to the same subject. But against this: we also deny a natural capacity of wholly

similar parts of a quality to be united simultaneously to the same subject, nor are you permitted to presuppose it. Besides, only this follows from it, that substantial form cannot be intensified naturally; yet it could be intensified by Divine power, since the whole concept of intension could be preserved in it. Thus, although quantity cannot be created naturally, nevertheless, if it is produced from nothing by God, it will truly be created, because the whole concept of creation will be preserved in it. *One may say 3º*: this example applies equally against heterogeneous degrees; for if God conjoined dissimilar substantial forms in the same matter, intension would not result. Indeed, from our opinion it follows that from the form of corporeity and the soul there would result a more intense form.

43. But against this: nothing compels us to admit a form of corporeity or another subordinate form. Yet even if it is admitted, intension will not therefore result, because in our opinion intension does not result from forms or parts merely because they are in any way dissimilar, but only from those contained under at least the same proximate genus. For if they belong to diverse genera, they do not cause intension. Thus a quality united to quantity and received in it does not make with it a more intense accident; nor from matter and form is a more intense substance made, although a greater substance is made. But if by Divine power several forms of the same genus were united to the same matter, for example the souls of a lion and a horse, intension would not therefore result, because in our opinion it is constituted only from parts essentially united, since it is one essentially. But those souls could be united to one another only accidentally, since they are not mutually ordered to constitute one thing. Yet in the principles of the adversaries the lack of essential union is no obstacle; for, if their principal argument has any force, it suffices for intension that the subject be denominated again and again by similar forms, and not extensively, or not according to distinct parts.

44. It is proved 2º, especially in univocally active qualities, or qualities productive of other similar qualities. If the degrees are homogeneous, the very recent Philosophy which experience confirms and the adversaries acknowledge to be true will not stand, namely: that what is intense cannot be produced or increased by what is remitted; that of two things equally intense or equally remitted one cannot act upon or increase the other; and that no quality can intensify itself in its own subject. The absurd consequence is proved. For 1º, given homogeneity, whatever a quality intense as eight operates, a remitted quality extended through eight parts will be able to operate. Hence eight parts of a subject, each hot as one, will be able to produce in the same patient heat as eight or as seven, just as

another heat as eight could produce it. Thus an intense quality could already be produced by a remitted one. The antecedent is proved: because the remitted quality extended in the said manner possesses neither less nor dissimilar power or perfection than one intense as eight, since it consists of the same number of entirely similar parts. Moreover, it can be sufficiently applied according to all its parts, if, namely, a particle or point of the patient is immediately surrounded by eight things hot as one, or if those eight parts of the hot agent are miraculously made to penetrate one another.

45. 2º Something hot as four will be able to produce two degrees of heat in something hot as six, and ultimately dispose it for ignition; therefore an intense quality will be able to be increased by a remitted one. The antecedent is proved: where there is a capable subject, an applied agent of itself productive of the effect, and no stronger contrary obstructs, nothing is lacking for the production of the effect. But something hot as six is capable of two further degrees, and something hot as four is of itself productive of them if they are entirely similar to the first and second degrees; nor is there a stronger contrary, because two degrees of cold in the patient can be overcome by something hot as four. Therefore, etc. 3º For the same reason two things hot as five will be able mutually to intensify each other up to the maximum. And finally a quality will be able to intensify itself in its own subject; for why should five degrees of heat not be able to produce three others in the wood in which they inhere, since neither capacity of the subject, active power, nor application is lacking?

46. The adversaries deny these consequences because, they say, "Like does not act upon like," since the end of agents by the institution of nature is to assimilate the patient to themselves. Hence neither can what is remitted act upon what is intense, lest it render it more dissimilar to itself; nor can two things hot as five act upon one another, because, since they are supposed similar, the end of acting ceases; nor can something hot act upon itself, because it cannot render itself similar to itself, since similarity requires distinction. But against this 1º: that maxim, "Like does not act upon like," must be false in the opinion of homogeneity, since it is contrary to the philosophical rule that natural agents strive to exercise their power according to the capacity of the applied subject. Certainly a substantial effect never ceases to be produced except either from defect of application or from incapacity of the subject, insofar as it is preoccupied by an incompossible and more tenacious form, or one rendering a new form useless. For this reason, for example, fire does not act upon matter already ignited, because the matter is preoccupied by an incompossible form which

would be uselessly expelled in order to introduce another entirely similar one. Why, then, should the same not be said in an accidental effect?

47. Against this 2º: two things hot as five, mutually intensifying one another, will finally become similar in intension as eight. Therefore they will be able to act upon one another without detriment to similarity. Against this 3º: eight things hot as one, each with power as one, applied to a non-hot patient, either act as one agent by a common action, or each acts individually, prescinding from the others. If in the second manner, then, since each intends to assimilate the patient to itself, each will produce one degree of heat in it; therefore eight degrees will simultaneously be produced in the same patient, which will become hot as eight. But if they act by a common action, then that whole agent will strive to assimilate the patient to itself as far as it can. But the patient will become more similar to the whole complex of eight things hot as one if it receives eight degrees of heat than if it receives only one; for then the number of homogeneous parts of heat will be equal in the patient and in the adequate agent, which is the form of similarity. Therefore eight degrees will then be produced in the same patient.

48. Hence another response of the adversaries, or the same response under other terms, is attacked, namely that superiority of the agent with respect to the patient is a condition naturally required for acting no less than local application, and that no other reason can be given for this than the nature of things itself, known through experience, by which we constantly see that neither does like act upon like nor what is remitted upon what is intense, just as experience alone shows that no agent acts upon a patient unless approximated. It is attacked, I say, because eight things hot as one, applied to a non-hot patient, or even to a patient already hot as four, possess sufficient superiority to intensify it up to the sixth degree, at least if they act as one agent, as they undoubtedly will if they are continuous. Proof: an agent is superior when the form through which it acts is more perfect in the agent than in the patient. But this occurs in the proposed case; for the form through which the agent acts, since it is heat consisting of eight degrees, is certainly more perfect than the heat of the patient consisting of four or six degrees. Nor does it matter that those eight degrees are not in the same part of the subject-agent but in eight distinct parts; for this does not prevent them from being entitatively similar and equal to the degrees of the patient and, moreover, superior in number.

49. Hence I argue thus: those degrees, insofar as they exist in eight parts, are not less perfect than if they were in the same part of the agent. But if they were in the same part, they would have superiority with respect to the

patient. Therefore. If perhaps one says that they are less perfect as regards union, this will easily be rejected, both because union is not the reason for acting and therefore does not vary the perfection of active power, and because there is no source from which a greater perfection of intensive union than extensive union can be taken if the extremes of both are the same or equal. I argue otherwise: heat intense as eight is superior to heat as four only according to the number of similar parts. But this superiority is also found in eight extended degrees. Therefore in both cases there is sufficient superiority for acting upon something hot as four. If one says with some that in intense heat, besides numerical excess, there is also an excess of perfection on the part of the unions, because the later arriving degrees are united more perfectly than the earlier, this too will be rejected: first, because inequality, and therefore heterogeneity, is thus already posited in the unions, and once this is posited whatever is objected against heterogeneity of degrees is completely broken; second, because when intension occurs instantaneously, as often happens in light, there is among the degrees no priority or posteriority either of time, as is supposed, or of nature, since the degrees have no subordination or causality among themselves. Therefore no order or inequality among the unions will then be given.

50. Finally, that reason in n. 46, that remitted heat cannot intensify itself because through lack of distinction it cannot render itself similar to itself, absurdly proves that no accident can operate in its own subject, even equivocally, since even an equivocal agent intends to assimilate the patient to itself by analogical similarity, which likewise requires distinction. Hence light could not produce heat in its own subject, nor an act a habit, nor a species cognition, which no one would say. Therefore, just as these accidents operate in their subject because capacity is found there, and active power in themselves, together with application, why for the same reasons could heat as five not produce three further degrees of heat in its own subject? Perhaps one may say that no accident operates except for the good of the substance in which it inheres; hence if the substance requires only heat as five, that heat cannot intensify itself further. But this response is rejected, both because the heat of boiling water operates *ad extra* without benefit to the substance in which it inheres, and because the heaviness of a man falling from a height produces motion in its own subject, certainly not to its benefit, and because at least the remitted cold of lukewarm water could intensify itself without assistance from the form of water, since this intension would conduce to the good of its own substance; hence the common proof for the active power of substance upon its own properties

would collapse. Similarly, the heat of a living thing, if it were remitted below what is due, could intensify itself by its own power.

51. It must therefore be said that a remitted quality cannot intensify itself, nor another quality equally or more intense, because the higher degrees are dissimilar to the lower and are not contained in them as in univocal or adequate causes, however much the lower degrees are multiplied extensively. Thus a suitable reason is given for experience, nor is recourse had to the occult nature of things, which a Philosopher should avoid as far as possible. *One may say:* the reason is indeed suitable if it is true, but it remains to prove that it is true. Thus, if it were true that distant matter is not of the same species as applied matter, this would be a suitable reason why fire acts upon the applied and not upon the distant; but because this is not true, recourse is therefore had to the occult nature of things.

52. But precisely from this our opinion is effectively proved thus. Where the occult nature of things is being investigated, that hypothesis should be judged actually to exist which better agrees with effects or phenomena known by experience, or through which a suitable philosophical reason can be given for them, provided such a hypothesis is not otherwise impossible and it is not evident that the opposite exists. This is a general maxim which no Philosopher should deny and which could easily be confirmed by examples if necessary. But here the occult nature of intension is being investigated, and the hypothesis of heterogeneity of degrees agrees much better than homogeneity with the effects or phenomena which we experience, since the former rather than the latter supplies from experience a suitable philosophical reason for them, as the adversaries acknowledge and as seems evident. Nor is that hypothesis otherwise impossible, as nearly all the adversaries admit; indeed this seemed so certain to the Excellent Doctor that, loc. cit. n. 41, he said no reason occurred to him that even apparently showed such a hypothesis to be impossible. Nor, further, is it evident that the opposite exists, as anyone can see. Therefore this hypothesis should be judged actually to exist. Hence the example of application is turned back. For if it were not evident, nor more consonant with other phenomena, that distant matter is of the same species as applied matter, it would not unreasonably be judged specifically diverse from the fact that fire does not act upon it. Add that a suitable reason for this experience is given from the limitation of fire and other agents.

53. It is proved 3º in corruptive qualities, or those having a contrary. For this there must be presupposed the common doctrine that contrary qualities can peacefully be conjoined in a remitted degree, for example heat as four with cold as four; likewise that precisely insofar as one increases, the other

decreases, so that no more than eight degrees from both together can exist in the same subject. Hence heat as five coexists only with three degrees of cold, heat as six with two, heat as seven with one, heat as eight with none, and similarly conversely. This being posited, the argument proceeds thus. If the degrees are homogeneous, the first degree of cold introduced into a subject hot as eight must either expel all the degrees of heat or none, for there is no reason why it should be opposed to one rather than to the others if they are all entirely similar. Yet no one doubts that the consequence is false, since it is certain that only one degree of heat is then expelled. Nor should it be said that of the degrees of heat that one is expelled which was first or last produced. For if intension occurs instantaneously, as happens at least at the beginning of the World in the heat of fire and cold of water, no degree is first or last. Besides, to be first or last, if this does not remove similarity with the others, is a circumstance irrelevant to contrariety, which must be founded in the intrinsic character of the forms. By this the response of Fr. Quirós is also rejected, who devises a certain order of union and eduction by virtue of which some degrees depend upon others, but not conversely. For first, this is to found contrariety not in the degrees themselves but in their diverse union or eduction. Second, if such order is not founded in the diverse character of the degrees, there is no source from which it may arise. Finally, what we said in a similar case in n. 49 applies here.

54. The common response of the adversaries is that the first degree of cold is opposed to one degree of heat taken indeterminately, insofar as it requires that eight degrees of heat not be in the subject, or that there be no more than seven, which will be verified when one has been expelled, whichever it may be. Which one is to be expelled, however, the first cause alone determines, just as it determines which drop is to be expelled from a vessel full of water when a new drop is placed in its midst, or as it determines any effects whatsoever as regards the individual, for example which one of infinitely many first degrees that could divisively be produced is to be produced here and now. But against this 1º: the first degree of cold is contrary to heat by reason of the intrinsic character of the formal effects exercised by each. But according to the opinion of homogeneity, a formal effect of the same character is exercised by the degrees of heat whether taken indeterminately or determinately. Therefore contrariety remains in either way. But if one contends that "indeterminately" conduces to contrariety, I infer thus: therefore the first degree of cold, after one degree of heat has been expelled, is still contrary to one of the seven remaining degrees taken indeterminately. The consequence is proved: because one

degree of heat taken indeterminately, whether it is taken from seven or from eight, is of the same character both as regards the character of itself and of its formal effect and as regards indeterminate acceptance. Therefore, if the first degree of cold is contrary to one degree of heat taken indeterminately from eight, why not also to one taken indeterminately from seven? Certainly no difference appears, unless contrariety is absurdly reduced not to the nature of the degrees but solely to number, so that eight degrees of heat are contrary to one of cold, not because they are such, but because they are so many.

55. Hence against this 2º: let there be in the same subject four degrees of heat and four of cold. From the given response it follows that a new degree of heat arriving will not fight more with one indeterminate degree of cold than with one degree of the pre-existing heat, but will merely require the expulsion of some degree from the entire preceding collection of cold and heat. The absurd consequence is proved: because that new degree is equally compossible with each and all of the four degrees of cold as with each and all of the four degrees of heat; for it would connaturally exist in the subject with four degrees of cold if one of the four degrees of pre-existing heat were expelled, and without doubt it would be peaceful provided there were not in the subject a collection of eight degrees besides itself, whether of cold or heat. Therefore the requirement of the new degree would be equally satisfied by the expulsion of one of the four degrees of heat as by the expulsion of one of the four degrees of cold. Therefore it has the same conflict or hostility with either, for such conflict tends to this, that the degree exist without violence, which would be obtained equally by the expulsion of either. The point is pressed by the very example of the response: if in a full vessel equal numbers of drops of wine and water are mixed, a new drop of water arriving does not require the expulsion of one of the drops of water rather than one of the drops of wine, because it is incompossible only with the collection of all the drops of both liquids, and if any one were expelled, it would be received equally well. Therefore likewise, etc.

56. The point is pressed again: in the proposed case the four degrees of cold are not contrary by themselves to the fifth degree of heat, but insofar as conjoined with the four other pre-existing degrees of heat. Proof: because they are contrary insofar as they resist introduction of that degree; but they resist only insofar as conjoined with the other four degrees of heat, since, if one of them were lacking, the resistance would immediately cease, as is certain. Therefore contrariety with respect to the fifth degree of heat does not consist in cold as four alone, but is also intrinsically constituted through

the four other degrees of heat, with any one of which removed, while all the cold remains, the contrariety would cease. Therefore not cold alone, but the whole complex of cold as four and heat as four, is contrary to that fifth degree; and this consequence is undoubtedly absurd.

57. Accordingly, in the opinion of homogeneity true contrariety of qualities cannot be preserved. Only a certain numerical and quasi-local incompossibility is preserved, like that of several bodies in the same place or of drops of water in an overfilled vessel, insofar, namely, as the subject cannot contain more than eight degrees, whether from both or from either contrary quality, and therefore when a fifth degree of heat arrives one degree of cold must yield its place. But that contrariety is not solely by reason of the number of degrees or the incapacity of the subject, but must further be founded in the opposed character of the qualities, seems certain, both from the common judgment of Philosophers and because otherwise heat as eight would be contrary in the same way to another heat as eight as to cold as eight, since it naturally permits the company of neither in the same subject. Therefore a heterogeneous character, or diverse nature, must be admitted in the degrees of each quality, by virtue of which the eighth degree of heat is determinately opposed to the first of cold rather than to the others, the seventh to the second, the sixth to the third, the fifth to the fourth, and conversely. Thus a clear and suitable reason is given for all that we experience in contraries. For to one asking why heat as four can be joined with cold as four, the answer is that in that degree they are not contrary except dispositively, insofar as each disposes toward a degree contrary to the other. And to one asking which degree of cold the fifth degree of heat expels, the answer is: the fourth. Why that one rather than another? Because by its own character it determinately conflicts with that one and not with the others. Here too the proof of our opinion given in n. 52 can be applied.

CHAPTER III.

The Contrary Arguments Are Examined.

58. *Objection 1, and principally:* intension can occur through similar degrees; therefore it actually occurs in this way, because dissimilar entities are not to be multiplied without necessity. The antecedent is proved: if God placed in the same subject several similar degrees of heat, for example some of those which we call first degrees, the subject would become hotter; not extensively; therefore intensively. Confirmation 1º: in that event the subject would become more capable of heating, and touch would perceive greater heat in it. But from these signs we know the intension of qualities. Therefore

either intension of heat must then be acknowledged, or the trust generally placed in experience concerning intension must be abolished. Confirmation 2º: the same degrees are indifferent to causing either extension or intension. But the degrees which cause extension are similar. Therefore. The major is proved by examples. Red wine, if diluted with water, appears less red for no other reason than because the degrees of redness which previously caused intension, afterwards dispersed through more parts of matter, cause extension. Likewise spectacles contribute to clearer vision because species which otherwise would be diffused through the eye and cause extension are brought together by the aid of the spectacles into one point, as it were, and cause intension. Similarly, a louder noise or sound results from several sounds simultaneously emitted in the same place which could have been emitted separately in diverse places.

59. First, I turn the argument back. Intension can occur through dissimilar degrees in such a way that there is no need to have recourse to the first cause or to the occult nature of things in order to give a reason for manifold experience. Therefore it actually occurs in this way, because such recourse is not to be made without necessity. Next, I press the point in several ways. 1º By the examples adduced in nn. 40 and 42; for the same object simultaneously seen by eight weak-sighted persons would become more seen; Peter, simultaneously knowing eight men by eight similar cognitions, would become more knowing; the same matter simultaneously receiving several forms of fire would become more ignited. But in these cases TO "more" would not be taken extensively. Therefore it would be taken intensively. 2º Intension, according to the adversaries commonly, does not occur without union of the degrees among themselves. Yet if the same subject received several degrees not united to one another, it would become hotter, and not extensively. 3º The same subject simultaneously possessing heat, light, whiteness, and sweetness is more qualified than if it possessed light alone; not more extensively. Therefore an intense qualification results from all those qualities.

60. It must therefore be admitted that there is a middle between "more intensively" and "more extensively," if the latter signifies only quantitative extension; for there is a certain "more" which signifies a purely numerical extension consisting in the mere multiplication of entities, which neither makes something greater intensively nor coincides with quantitative extension. In this sense "more" is equivalent to "more times." This is clear in the instances just given, and also in the hypothesis in which the same effect were simultaneously produced by two total causes, or the same place simultaneously filled by two bodies; for then both the effect would be

"more" produced and the place "more" occupied, that is, "more times." In form, I deny the antecedent of the objection, because intension, since it is one essentially, requires parts naturally coordinated to be united to one another by a penetrative union. Such union cannot be essential unless the parts are thus coordinated; but entirely similar degrees cannot be such, from what was said in n. 39. To the proof, I distinguish the major: it would become hotter, that is, hot more times, I grant; taking "more" otherwise, I deny the major. Then I distinguish the minor: if "extensively" signifies quantitative extension, I grant; if it signifies purely numerical extension, I deny the minor and the consequence.

61. To confirmation 1º: in that event the subject would be more capable of heating extensively, insofar as it could produce heat as one in more parts of the patient, but not intensively, because in no part of the patient could it produce heat as two, since in its own power it would not contain the second degree. Touch, however, would perceive heat greater only numerically, insofar as it perceived several degrees of heat. Nor would the sensation itself, although one sensation perceived all the degrees indivisibly, be properly intense; just as, if there were this indivisible cognition, "Peter and Paul," it would not be more intense than the cognition "Peter," but would only be virtually or equivalently more extensive, since it is equivalent to two similar cognitions. The senses would indeed be deceived in that event by a certain appearance of intension; but they would be equally deceived if eight parts of a subject, hot as one, were made by Divine power to penetrate one another, or if eight degrees of heat existed in the same subject without union among themselves. In these examples the same difficulty presses upon the adversaries. Nor must trust in the senses or in experiences generally therefore be abolished; for some indication can be physically evident although it fails in a miraculous event. Thus the accidents of bread furnish physically evident indication of the substance of bread, yet this ceases to hold in the Eucharist.

62. To confirmation 2º, I deny the major, notwithstanding the examples of the proof. For when red wine is mixed with water, its redness is not scattered into more parts of matter; if it passed into the parts of the water, it would change its adequate subject, which no one would say. Therefore it appears less red because the parts of the wine are less conjoined through admixture of water, and hence send a less vivid species to the eyes. But since redness and any other object is an equivocal cause of species, it can produce them more or less perfect according to diversity of application, subject, or medium. This same is the reason spectacles assist toward seeing more clearly, namely because that disposition of the medium conduces, not so

that similar species come together, but so that the object produces a more perfect species in the pupil. To the example of remitted sounds, granted that they are entirely similar, it should be said that they are not received in the same part of the air, nor coalesce into one intense noise or sound; nevertheless, from all together a more perfect species can equivocally be produced in hearing than would be produced by one alone, and hence a more perfect hearing also results. Here note that commonly the same is said of an intentional species as of a vital act, namely that its intension is improper or virtual, insofar as a more perfect species can be produced in place of a less perfect one.

63. *Objection 2:* the same part of the air is illuminated more intensely by two equal lamps than by one, but light of the same character is produced by each. Therefore. Confirmation 1º: because if one lamp arrives after another, the degrees of light produced by it and completing the more intense light can remain the same in the remitted light if, namely, the first lamp is afterwards extinguished. For why should they perish while the same subject and applied agent remain and no contrary attacks? This is even witnessed by the eyes; for if the later lamp is sulfurous, after the first has been extinguished the same pale or livid light which previously proceeded from that later lamp will still be seen. Therefore those degrees do not presuppose other prior degrees in such a way that they cannot exist without them, and consequently they are not heterogeneous. Confirmation 2º: the habit of fasting, for example, becomes more intense through repeated similar acts; therefore it becomes more intense through similar degrees, for diverse degrees cannot be caused in a habit by fasts of the same character.

64. I answer the objection: both lamps, when simultaneously applied, produce by a common action one and the same intense light composed of heterogeneous degrees, which each lamp contains as an equivocal cause by reason of its substantial power. A single lamp does not produce the whole while it exists alone because the thinness of the matter obstructs it, just as it obstructs a small fire from producing as much heat in the neighboring air as a fire twice as large would produce. The adversaries themselves must say this if asked why light as four is produced in the air by two equal lamps if only light as two is produced by one, when it is otherwise certain that an intense light cannot be produced by a double remitted luminous thing. Therefore they are compelled to admit that one lamp acts more remittedly, not from defect of intension or virtual containment on its part, but from the thinness of the matter.

65. To confirmation 1º: the later arriving lamp produces, either by itself or together with the other by a common action, new heterogeneous degrees

of light, the fourth and fifth, for example, which essentially presuppose the earlier degrees and which would not proceed from the same later lamp unless the subject were presupposed to be disposed by the prior degrees. For if this lamp were applied to non-luminous air, it would expend its power in producing the earlier degrees, just as the first lamp does. Hence, if the light of the air is remitted after the first lamp is extinguished, the fourth and fifth degrees previously produced by the later lamp do not remain, but perish through defect of the subject, namely through defect of the lower degrees which perish with the first lamp; for a lower degree either is the subject of the higher, or certainly is a disposition or condition naturally necessary on the part of the subject. When this condition is lacking, the subject is lacking insofar as proximately disposed for the higher degree. Therefore the later lamp, when the first is extinguished, ceases to conserve the fourth and fifth degrees and produces other lower ones, just as if it had arrived first from the beginning; and these degrees can imitate the higher ones in sulfurous color.

66. To confirmation 2º: we say nearly the same as above concerning the lamps, namely that a habit is intensified by acts as by equivocal causes, which, although each virtually contains the whole intension of the habit proportioned to itself, does not each produce the whole because of defect of disposition in the subject or even because of the shortness of its own duration. Hence the first act, because it finds the subject indisposed, produces a habit in a very remitted degree. The second act, although similar to the first, because it now finds some disposition, produces a higher and heterogeneous degree, or part of one; and so of the others. See Fr. Suárez, d. 44, Met. s. 10, especially n. 13 sqq., where he explains how the potency resists production of a habit and proves that a habit cannot be intensified by similar and equal acts beyond the degree of their own intension. Let the same response be made to the example also commonly objected concerning gravitation or impulse, which is rendered more intense by addition of equal weights, for example by multiplying grains of wheat. And indeed, unless in grains, acts, lamps, and other things of this kind there is presupposed an equivocal power containing the whole intension of the effect, these examples prove that an intensely hot thing can be produced by many remitted hot things, just as intense gravitation is produced by many exceedingly small grains of sand.

67. *Objection 3:* if the degrees are heterogeneous, the higher will be more perfect than the lower. Therefore the eighth degree by itself will contain the perfection of the others and consequently render them superfluous in the same subject, just as a rational soul renders lower souls superfluous in its body because it contains their perfection. Some defenders of our opinion

answer that all the degrees, although dissimilar, are nevertheless equal in perfection, according to the opinion probable in the *Animastica* that specific diversity does not always imply inequality of perfection. And although the first degree is lowered by the title of subordination to the second, this imperfection can be compensated by greater independence; for the second depends upon the first, not conversely, and so of the others. This solution is sufficiently expeditious.

68. The common response, however, grants an excess of perfection in the higher degrees relative to the lower, not taken together, but individually, just as perhaps the diamond is the most precious among precious stones, although in price it does not surpass all the others taken together. Accordingly, the eighth degree contains each of the others eminently, first by containment of perfection, because it is more perfect than each; second by containment of power in active qualities, because it can influence the production of them or of similar degrees. Hence it does not render them superfluous in its own subject, since the eighth itself is not formally the seventh, sixth, and so forth, nor by itself constitutes the subject hot as seven or as eight. For if it existed without the others, it would denominate the subject only "hot by the eighth degree." Thus light does not render heat superfluous in its own subject because it is not formally heat, although it contains heat virtually or eminently. The lower degrees therefore serve both to dispose the subject for the higher and to render it formally hot as one, as two, and so forth, and to assist the higher in operating. But the rational soul renders lower souls superfluous either because it itself formally constitutes the body sensitive and vegetative, or because it is a substantial form, which does not tolerate the company of another. Certainly it renders other equal and similar souls still more superfluous; hence the example is turned back.

69. *Reply:* the eighth degree exceeds the seventh by an excess as one, exceeds the sixth by an excess as two, and so successively; therefore it exceeds the first by an excess as seven. Therefore alone it is worth as much as the other seven taken together. First, even if the whole were admitted, the seven degrees would not therefore be superfluous, since they would serve the ends just indicated. Next, I distinguish the antecedent: by an excess as one doubling the value of the seventh degree, I deny; by an excess as one slightly outweighing the value of the seventh, I grant the antecedent. Understand the same proportionately of the sixth and the others. Then I distinguish the first consequence: by an excess as seven, that is, seven times greater than the excess over the seventh degree, I grant; by an excess as seven equivalent to seven degrees together, I deny the first and second consequences. Accordingly, the excess of the eighth over the seventh is

slight. For it does not consist in the eighth's belonging to some higher genus or order, as beatific vision does relative to other visions, but in its being determined by its nature to constitute such a mode of intension by subordinating the other seven to itself, or even in its being somewhat more active. Hence that excess, considered separately, perhaps is not equivalent to the perfection of a seventh part which can be distinguished either really or rationally in the seventh degree; and therefore, although the excess of the eighth over the first is seven times greater, it is not thereby equivalent to seven degrees taken together. Suppose eight men, of whom the eighth exceeds the seventh by only one finger, the sixth by two, and so successively; the eighth alone will not thereby become equal to the other seven taken together. Likewise, although an emerald is surpassed by a topaz, the topaz by a sapphire, the sapphire by a pearl, and the pearl by a diamond, the diamond alone is not thereby equivalent to the others taken together.

70. I know that some wish that in non-active qualities, for example whiteness, the higher degrees, so called because they presuppose others in the subject, be less perfect than the lower, both because they require less duration, since they are expelled more quickly, and because they depend upon the lower, since they cannot exist without them. These imperfections in active qualities, for example heat, are compensated by the greater activity of the higher degrees, but in non-active qualities there is nothing by which they can be compensated. Yet this opinion seems repugnant to common judgment, which, once heterogeneity of degrees is posited, conceives the lower in every quality as subordinated to the higher. But nothing more perfect is subordinated to something less perfect. O*ne may say:* subordination is nothing other than dependence of the higher upon the lower. Against this: although subordination imports dependence, it adds something further; for not everything which depends upon another subordinates that other to itself, otherwise an accidental property would subordinate substance to itself. Therefore subordination requires that that to which another is subordinated be worthier than the other. Add that a lower degree is by its own nature a disposition toward the higher, and therefore ought to be less perfect than it, since it is produced for its sake, as is clear from the example of a disposition to substantial form. Add further that the very name "degree" in parts of intension indicates that one ascends step by step from some to others as to higher parts; but in no sense are they higher if they are not more perfect. Accordingly, the greater independence and greater resistance of the lower, or their greater requirement of duration, is compensated by the better nature of the higher degrees, which always renders them more active. For there is no quality which is not at least

equivocally active of some effect, and of an effect more perfect in proportion as the quality itself is more intense. Whiteness, for example, is at least active of a visual species and produces it better and more vivid when it is more intense. For the rest, it often happens that a less perfect form is more resistant and more tenacious of duration, as is clear in the form of iron or stone compared with the soul of a brute. Often also a more perfect form is expelled through a less perfect one, as the soul through the form of a corpse. Hence it is no wonder that the eighth and highest degree of heat, for example, is expelled by the lowest degree of cold.

71. *Objection 4:* if the degrees are heterogeneous, they will be specifically diverse; therefore they cannot be united to constitute one essentially intense quality, otherwise one essential quality could result from whiteness and sweetness, or from cold as four and heat as four. Confirmation 1º: however much whiteness and blackness agree in the character of color, because they differ specifically they cannot be united intensively. Therefore likewise the first and second degrees of heat, although they agree in the character of heat, if they differ specifically cannot be united intensively. Confirmation 2º: according to the familiar proverb, "More and less do not vary the species." Since intense heat differs from remitted heat only in more and less, it imports nothing specifically diverse, but denominates the subject "hotter," not "differently hot." Yet this objection proves against most of the adversaries that intension from heterogeneous degrees is impossible. Further, some hold that degrees of intension, although more dissimilar among themselves than parts of extension, are not therefore specifically distinct, because the whole heterogeneity pertains to individual difference; just as two visions of whiteness A elicited by Peter and Paul are more dissimilar than two other visions of the same whiteness elicited by Peter alone, and yet they do not differ specifically. Fr. Suárez favors this solution, cit. d. 46, s. 1, n. 40.

72. Yet because we admit degrees not merely dissimilar in some way, but unequal, therefore with the common opinion we grant that they differ among themselves by a partial and incomplete species, that is, a species essentially ordered to constitute with another co-part of diverse character one complete and total species. Nor does Fr. Suárez teach the opposite, who in the cited place speaks only permissively. That diverse parts can be coordinated to constitute one thing essentially is in no way repugnant from the terms, as can be seen in matter and substantial form, and in the parts of the form of corporeity according to the Scotists, and according to others among the adversaries in the heterogeneous parts of the soul of a brute or plant. Nor will whiteness and sweetness therefore cause intension, for they

differ by complete species, that is, they are ordered to constitute diverse complete species of intension. But whence, one asks, is this established? I answer: from the fact that each can be supremely intensified and perfected in a subject without admixture of the other, as whiteness in a swan and sweetness in some black liquid. The same reason applies to heat and cold; and besides, the more cold is intensified, the less heat it tolerates with itself, and conversely.

73. To confirmation 1º: in whiteness and blackness the same reasons hold for their belonging to diverse complete species as in heat and cold. Hence the character of color, even taken completely, is a subalternate species containing under itself several complete species; but the character of heat, if taken completely, is a lowest species, and is a subalternate species only when taken incompletely, for thus it contains under itself several partial species of heat. This is no different from habitual Logic, which, taken completely, is a lowest species, but incompletely a subalternate species, as capable of being contracted through mutually diverse habits of defining, dividing, and arguing. This can also be seen in the soul or form of leonine corporeity when, accepted incompletely, it is compared with the fleshy, bony, nervous, and other parts. To confirmation 2º: more and less in intension do not vary the species insofar as it is contradistinguished from other complete species; for heat, whether remitted or intense, is equally distinguished from every species which is not the complete species of heat and does not pertain to it. Nevertheless they vary the species by a partial variation pertaining to the same complete species. This can be explained by the example of Logic or the leonine form. Similarly, intense heat does not render the subject "differently hot" by a diversity pertaining to another complete species, but indeed by a diversity belonging to the same total species. From what has been said one will infer that degrees arriving to remitted heat, although they are integrating parts with respect to the essence of heat prescinding from remitted and intense, are nevertheless essential with respect to heat as intense, or taken completely.

74. *Objection 5:* given the Aristotelian composition of the continuum, there follows 1º from our opinion an infinity of dissimilar and therefore non-communicating parts in any heat, which infinity will be categorematic. There follows 2º that in heat as eight some part will possess infinite perfection, since it exceeds infinitely many other parts into which continuous intension can be divided. The same follows likewise in any degree, since the first degree, for example, is divisible into infinitely many heterogeneous particles unequally perfect. There follows 3º an infinite process in essentially subordinated parts, which is no less absurd than in efficient causes. I answer:

we are not obliged to admit Aristotle's opinion on the continuum, full of continual obscurities and difficulties. But if it is admitted, the objection must be answered by a counter-instance. The first consequence is distinguished thus: if a categorematic infinity of similar non-communicating parts follows equally in every continuum, let it pass; if it does not follow, I deny. We showed sufficiently in the *Physica*, disp. ult., c. 1, that the Aristotelian continuum is generally pressed by this difficulty, nor will any solution be given for a homogeneous continuum which will not also benefit a heterogeneous one.

75. The second consequence thus: if it follows equally that in a straw one palm long some part will have infinite bulk and be infinitely distant from the others, let it pass; if that does not follow, I deny. See the *Physica*, cit. c. 1, n. 5 sqq., where we show that, after the first half has been removed and set aside, God can remove without end other halves adequately distinct from one another, smaller and smaller, and all somewhat extended. Hence the bulk of the first half will exceed infinitely many others, indeed taken together. Likewise the extreme particle of the straw will be infinitely distant from any other non-immediate particle, since infinitely many particles, and consequently infinitely many extensions, lie between them. Finally, the third consequence thus: if an infinite process follows equally, and indeed of efficient causes, when fire creeps continuously through matter one palm long so that some parts are produced by others in continuous succession, let it pass; if this does not follow, I deny. Certainly that fire one palm long can be divided without end into parts more and more proximate to the first agent, each of which is produced by another more proximate part. Add to these that, if it is permissible to argue from the Aristotelian continuum, it follows from the opinion of the Homogeneists that heat infinitely intense can be made from heat as one extended through a subject one palm long. For if God transfers the heat of one half-palm into the other, heat as two will result; if afterwards he transfers the heat from one half of the half-palm into the other, heat as four will result; if afterwards from one half of that half into the other, heat as eight will result; and so to infinity, since there is no end of proportional halves. Hence, if God places the whole in the terminating point, a categorematically infinite intension will result.

76. *Final objection:* if the degrees are unequally perfect, two just men endowed with unequal grace and acting equally will merit unequally. Indeed, a just man possessing grace as 100 will merit more by a remitted act than a just man possessing grace as 4 by a very intense act; for the former will merit at least the one-hundred-and-first degree of grace, which in perfection surpasses seven or eight lower degrees merited by the latter. I answer: merit

increases, other things being equal, from greater grace, or dignity of the one acting, as the greater part of Theologians hold. Hence, of two just men unequal in grace and acting equally, he merits more who is more pleasing to God. Yet merit also increases from other sources, such as greater goodness, intension, and duration of the act, whose greater magnitude can often compensate for greater grace, so that one pleasing as four can merit as much or more by a heroic act as one pleasing as one hundred by a remitted act. *One may say 1°*: the grace of one just man can be so great that it cannot be compensated by the act of another, even a heroic act. I answer: this is not absurd, for no one will judge it incongruous that no just man merits as much through a heroic act of charity as the Virgin Mother of God through any act whatsoever of humility, for example.

77. *One may say 2°*: at least merit does not increase arithmetically from greater grace; but it would increase thus in our opinion, since a just man through an upright act merits at least one degree of grace which in perfection equals all the pre-existing degrees. I answer: first, arithmetic increase is approved by grave Theologians. Second, it is not inferred from our opinion, both because a higher degree does not equal all the lower degrees taken together and because an entire degree is not always obtained, but only some part of one; for each degree can be divided either into very many indivisibles or without end into proportional particles. *One may say 3°*: the grace which the Sacraments confer by the work performed is always equal; but the opposite follows from our opinion. I answer: although this grace is equal of itself and other things being equal, it can accidentally increase from a better disposition and greater grace in the recipient, as the Excellent Doctor proves, tom. 3, in III, p. d. 7, s. 5. *Finally one may say*: therefore a sinner already guilty of punishment as one hundred will merit more punishment by a new venial sin than a sinner guilty as one by a new mortal sin, since the latter merits the second degree of intension of punishment, while the former merits the one-hundred-and-first. I deny the consequence, because any mortal sin merits very many degrees of punishment which, taken together, far surpass the slight part of the one-hundred-and-first degree corresponding to the aforesaid venial sin. But enough of these things.

CHAPTER IV.

Various Minor Questions Pertaining Here Are Decided.

78. I call them minor questions, not because they could not be disputed more at length, as they are by many at leisure, but because they must be

decided briefly by us, who do not have leisure to discuss everything expressly. It is asked 1º, which forms are capable of intension? I answer: substantial forms are not intensifiable, for the reasons given in n. 43, because several cannot naturally be conjoined in the same subject, and if they were conjoined by Divine power, they could not be essentially united so that from them one essential form would result. Subordinate forms, if admitted, will always belong to diverse genera. Quantity likewise is not intensifiable, for the reason adduced in n. 29. Action and passion, when they regard an intensifiable terminus, can be intensified, not indeed around a terminus simple in itself, but around several parts by which the terminus is rendered more intense in itself; for the eduction of several degrees of heat also consists of its own heterogeneous degrees. No relation, however, seems intensifiable, except the relation of similarity in a quality or intensifiable form; for two white things, for example, can be rendered more or less similar. Yet this intension is in reality not distinguished from the intension of each whiteness, with which the relation of similarity is identified. Qualities, therefore, are principally those which admit intension, although not all; for intension has no place in the powers of the soul, nor perhaps in intentional species and acts of the soul except only improperly or virtually.

79. It is asked 2º, in what sense that saying so often repeated is true: "Like does not act upon like"? We spoke of this in the *Physica*, tr. 2, d. 3, c. 5, n. 4, as also of the other saying, "Every agent intends to assimilate the patient to itself." See also the Excellent Doctor, d. 18, Met. s. 9. Now, however, I answer: 1º something similar does not act upon something substantially similar by a substantial action, for example one fire upon another, because two forms of fire cannot simultaneously be in the same matter, nor would a new one be produced except uselessly by destroying the pre-existing one. 2º Something similar can act equivocally upon something similar by producing some accidental form which is neither superfluous nor contrary to another similar one. Thus one man produces a species of himself in the eyes of another. 3º If similarity is given in substance but not in quality, or not in the intension of quality, something similar can act upon something similar by accidental action. Thus hot water produces heat in cold water, and hotter water in lukewarm water. 4º If two things are similar in the intension of a quality, one cannot increase that quality in the other. This is the principal meaning of the stated maxim, which experience confirms, and which Fr. Suárez, loc. cit., says is, as it were, a first principle in Philosophy. We gave the reason in n. 51: because of two things hot as four, one cannot increase the heat of the other except by producing the fifth degree; for two fourth degrees would be superfluous and useless for intension. But the

power of something hot as four does not sufficiently contain the fifth degree, since it is by its own nature higher and diverse by an incomplete species. The same reason and experience prove *a fortiori* that what is remitted cannot act upon what is intense, so that something hot as four, for example, could increase something hot as five. It also proves that it cannot intensify itself, so that the four lower degrees produce the fifth in their own subject. Nor does it matter that the four lower degrees taken together equal or exceed the perfection of the fifth alone by reason of multitude; for even thus they do not contain it either as a univocal cause, since they are dissimilar, or as a principal equivocal cause, since they involve nothing pertaining to a higher species relative to the fifth degree. I would not, however, deny that lower degrees can concur instrumentally toward higher degrees if assisted and as it were elevated by another principal cause, namely other higher degrees or a suitable substance, which Fr. Suárez judges probable, loc. cit. nn. 27 and 28.

80. But manifold experience is objected, by which an agent seems sometimes to produce greater intension than it possesses in itself. For 1º if we join two equally hot hands, we feel them to be hotter. 2º Wine contained in a closed vessel and immersed in a well becomes colder in summer than the water of the well. 3º Glowing iron burns tow and therefore produces in it heat as eight, which it does not possess in itself, since it is not ignited. There is a similar experience in sunlight which, passed through crystal, ignites tow. 4º Air in winter freezes water although it is not itself frozen. 5º Boiling water, although less hot than flame, is productive of more intense heat, for it heats a hand rapidly passed through it more than flame does. Reflection and Antiperistasis, of which later, also pertain here. I answer to 1º: the conjunction of the hands causes the intervening air to be excluded; once it is excluded, either internal spirits flow there which increase the heat, or the sense, previously distracted by sensing the contiguous colder air, afterwards perceives the heat of the hands more vividly although it has not increased. To 2º: either the wine is not then colder than the water, although because of its density it affects the sense more, or it is rendered colder not by the water but by colder vapors inhabiting the well and adhering more to wine than to water. Hence the wine will become colder if the vessel hangs within the well near the water in the air. To 3º: glowing iron burns tow either because it possesses many particles of fire in its pores, or because tow, through other peculiar dispositions, does not require heat as eight in order to catch fire. In the proposed experience with crystal it must be said that tow, because it is more or otherwise disposed, can receive any intension of heat from light as from an equivocal cause. To 4º: frozen water is not colder than the air surrounding it in winter; it freezes not from cold alone, but simultaneously

from an adventitious dryness, as we shall say elsewhere. To 5º: boiling water cannot increase the heat existing in flame; nevertheless, because of greater density, it can produce heat in a hand more quickly than flame, although it never produces more intense heat than the heat of the flame or of the water itself.

81. It is asked 3º, whether and to what extent a multitude of similar agents or greater density of a corporeal agent conduces to operating better. I answer 1º: in equivocal agents greater density or multitude conduces to operating more intensely. Thus a grain of gold gravitates more than a grain of wheat because it is denser, and many grains of wheat more than one. The reason is that density conjoins the active parts more, "and united power is stronger"; multitude also renders each agent stronger by assistance of the others, as when several men mutually assist one another to raise a weight. Moreover, nothing is then effected above the power of the cause, because every equivocal agent eminently contains the entire intensive latitude of the inferior effect, for example every heaviness contains the entire intension of gravitation or impulse, although accidentally it cannot produce the whole because of defect of application or smallness of bulk. Hence it can happen that a quality acting equivocally is more remitted in its own species than the effect in its species, for example if light as four produces heat as five; for even then the cause does not operate above the intension which it contains in itself at least eminently. This, however, fails in certain equivocal causes because of their peculiar character.

82. I answer 2º: in univocal causes density or multitude does not conduce to making the intension of the effect greater than that of the agent; nevertheless it conduces to making the effect more intense than it otherwise would be. The reason for the first part is that four lower degrees of heat, however much they are in dense or manifold matter, do not sufficiently contain the fifth degree, from what was said in n. 79. The reason for the second is that, since density and multitude strengthen powers, as we just saw, they can cause something hot as five to produce four or five degrees in a non-hot patient when it would have produced only two or three if it were in rare or scant matter. Hence several similar candles, even if they are supposed to act not equivocally through substance but only univocally through their proper light, illuminate the same space of air more intensely than one candle would illuminate it. Yet one does not intensify the light of another, nor do several together intensify the light of the air beyond the intension of each candle, nor could they intensify it however much they were multiplied. What we have said of a multitude of agents is true also when they are applied successively, provided the effect of the earlier agents

persists; for even then the intension of the patient can successively be increased, though not beyond the intension of each agent. Thus several portions of boiling water successively applied heat the hand more than one of them. The same is also true of the multitude of integral parts of a continuous agent; for a hot thing one palm long acts more intensely, other things being equal, than one half a palm long. Nor does it matter that the more remote parts of the agent do not immediately touch the patient; their continuity with parts contiguous to the patient suffices for all to act together by a common action. See what was said in the *Physica*, tr. 2, d. 3, c. 3, n. 12, provided, however, that the more remote parts are not wholly distracted toward other effects. I answer 3º: density and multitude of agents, or of parts of an agent, also conduces to an effect producible by such power being produced more quickly, in more parts of the patient, and even at a greater distance. For thus that power more easily overcomes the contrary and claims for itself a broader sphere.

83. It is asked 4º, whether a univocal agent can perfectly assimilate the patient to itself. Concerning a substantial agent there is no doubt that it can, for fire produces another fire entirely similar to itself, both substantially and accidentally. Concerning an accidental agent, or one operating through quality alone, the more recent authors commonly deny that it can assimilate the patient to itself as regards intension unless it penetrates with it; otherwise a quality, at least one lacking a contrary, could be extended uniformly throughout the entire sphere of the agent. For the light of the Sun would produce in the immediately adjacent space another light equally intense, this another perfectly similar light in the next space, and so continuously to the earth; hence the light would be equally intense near us and near the Sun, which plainly contradicts experience. A reason is added: just as distance of places impedes, so distinction of places, which exists in agent and patient when they do not penetrate each other, diminishes the action of the agent, since it removes maximal application. Certainly, if the agent penetrated with the patient, it would produce equal intension. Therefore, when it does not penetrate, it produces a lesser intension, since it is less applied; for the effect decreases according to diminution of application. They add, however, that the defect of penetration can sometimes be supplied by great density or multiplication of agents, so that if many things hot as eight are applied to the patient they can then produce heat as eight. Some also admit this without multiplication if the patient is already supposed from elsewhere to be hot as four or as six.

84. To me, indeed, this resolution is pleasing if understood of things commonly occurring, because we commonly experience that a quality, the

farther it is from the principal agent, the more remitted it is of itself, whether it has a contrary or not. Yet the reason taken from defect of penetration does not please me. First, because with equal force it proves that fire cannot produce another wholly similar fire unless it penetrates with the patient, which is openly false. Second, because penetration, since it is naturally impossible, cannot be a means simply necessary for an agent perfectly to attain its natural end, which end is "to assimilate the patient to itself." Hence, since the greatest naturally possible application, namely contiguity or local immediacy, can exist without penetration, the fact that the perfect attainment of that end is then not given does not proceed from defect of application. Add that in solar light the defect of penetration could be supplied by the equivocal power of the substance of the Sun, just as it is supplied by multiplication of agents according to the more recent authors. Accordingly, either recourse must be had to a law of Nature known to us by experience, or it must be said that, since an agent ought to act throughout the whole space of its sphere, for thus the common good of the universe requires, it cannot produce its whole intension in the proximate and contiguous space, lest it immediately expend all its powers and afterwards be unable to act at all in the farther space. Hence, if the sphere of a luminous or hot thing is constricted by an obstacle, as when a flame is enclosed in a small room, the proximate space is more intensely illuminated and heated than if the action of the agent were allowed to extend farther; and the constriction of the sphere can be so great that the whole intension of the agent is produced in the remaining space. Hence perfect assimilation of the patient with the agent is not naturally impossible, to which also pertain the exceptions placed at the end of n. 83.

85. But *objection 1:* although the Sun reserves powers for the farther space, nevertheless the light produced near the Sun will be able to produce another equally intense light in the next space, and so continuously, so that that intension reaches us uniformly. I answer: that light nearest the Sun also has its own sphere for which it reserves powers. These powers, although joined with the powers reserved by the Sun, do not produce equal intension in the next space because both powers reserve themselves farther for a greater distance until the sphere terminates. Therefore that light, which I posit as intense as seven, will be able with the aid of the Sun to produce in the next space only light as six, whereas it would produce only light as five if it acted alone. Understand the same proportionately of the light produced in the remaining parts of the space, which gradually decreases according to distance through lesser application to the Sun and through a certain weariness of activity.

86. *Objection 2:* therefore neither will fire be able to produce in a contiguous patient another equal fire, nor heat as eight, since it likewise ought to reserve powers. I deny the consequence, because substantial power, insofar as univocally productive of substance, is not reserved for a distant sphere, since the effect would have to be remitted or decreased according to distance, and substantial form is not capable of remission. Therefore that power acts upon the proximate patient as far as it can. And when a great house is set on fire by a small fire, the whole conflagration is not produced by the first fire, but only one part, which afterwards produces another, and this another, and so successively. Heat as eight, however, is not always produced in the patient by the acting fire, because there are many combustible materials which through heat as seven are ultimately disposed to ignition, or which already possess heat from elsewhere. But when the combustible material requires the whole heat as eight, it can be said that the acting fire and its heat turn upon the proximate patient the heating powers which otherwise would be reserved for a wider sphere, lest, namely, the occasion of producing the substantial effect be lost. This occurs only in the first instant of generation, for in the following instants the new fire already conserves its own heat and the heat of the agent remains unoccupied.

On the Intension of Quality Through Reflection.

87. It is asked 5º, by what manner a quality is intensified through reflection. Reflection is the retrogression of action and terminus toward the principal agent, and is given when an action which was to be continued farther along a straight line strikes an obstructing body, from which, as though struck back, it changes its advance into a return. We experience this retrogression not only in local motion, as when a playing ball rebounds from a wall, nor only in a voice which an echo returns, but also in various qualities, especially light and the intentional species, which, when they strike a suitable obstacle, especially a mirror, in some manner return toward the agent from which they draw their origin. This must not be understood as though the numerically same quality or part of a quality goes and returns like a playing ball, for then it would migrate from subject to subject, but rather that the propagation of the quality which was to occur beyond the obstacle returns to the preceding space. Here it should be noted that propagation tending from the agent toward the obstacle is called "direct action," while that which tends from the obstacle toward the agent is called "reflexive action." The line of direct action is called the "line of incidence," and the line of reflexive action the "line of reflection." When light strikes a

polished and clear obstacle perpendicularly, the line of incidence and of reflection is the same; but when it strikes obliquely, the line of reflection is then opposite the line of incidence, so that one, for example, holds the right and the other the left, and the angle of reflection is equal to the angle of incidence. A playing ball rebounds in the same way, from whose example this matter is easily understood.

88. Refraction, which likewise commonly occurs in light and in the visual species, must not be confused with reflection. Refraction is not retrogression but inflection, or further progression with some bending, and occurs when a ray of light passes from one transparent medium into another of diverse density. When it strikes obliquely upon the common surface of both transparent media, it indeed proceeds beyond, but at that surface it is broken or bent, so that it does not continue the straight line along which it came but takes another more or less distant from the perpendicular. For if it passes from a rarer medium into a denser, the line of refraction approaches more closely to the perpendicular; but it recedes farther from it if the ray passes from a denser medium into a rarer, for example from water into air. Here belongs the common experience of a coin placed at the bottom of an empty vessel which cannot be seen from a place somewhat removed, but will be seen from that same place if the vessel is filled with water. Hence also it happens that we see the Sun somewhat after its real setting and somewhat before its real rising. Dioptrics expressly treats refraction, as Catoptrics does reflection. What we have said suffices for explanation of the terms. Here it concerns us only to explain whence arises the intension of a quality which is usually greater near the obstacle than elsewhere, as when sunlight appears clearer near a mirror or white wall than in air situated farther from it although less distant from the Sun.

89. The reason for doubt is that if such intension proceeds from the Sun, why is it not produced, or a greater one, in air less distant from it? But if it proceeds from the light received in the obstacle, it follows that more intense light is produced by more remitted light; for the light in the obstacle, for example in a white wall, is often less than in the neighboring air. And although it is not less in a mirror, the difficulty recurs concerning the light of the mirror itself, because there is nothing from which that light is rendered more intense except the light produced by direct action in the neighboring air, which is more remitted. Omitting other solutions of others, I answer with Fr. Suárez, cit. disp. 18, s. 9, n. 34, that the principal agent, for example the Sun or fire, by direct action produces a more intense quality in the obstructing body from which reflection occurs than in the intervening air, because of the more suitable dispositions of the obstacle. That greater

intension then causes an equal or nearly equal intension in the neighboring air through an action called "reflexive" relative to the principal agent, upon which it mediately depends or from which it draws its first origin, although with respect to the immediate agent it is direct action.

90. Hence it does not follow that more intense light is produced by remitted light alone, because the light of a mirror, for example, is not produced by the direct light of the neighboring air alone, although this perhaps cooperates instrumentally with the principal agent from n. 79, but by the Sun itself. Reflexive light, however, is produced by the light of the mirror, which is not more remitted. Indeed, neither is the light received on the surface of a wall or paper more remitted than that which is reflected thence; nor is it less but more intense than the direct light of the neighboring air, because that surface possesses some transparency terminated by opacity and is denser than air, which renders it more apt for intension of light. For this reason the surface of the Moon is more intensely illuminated by the Sun than the neighboring ether. Moreover, that an agent can sometimes produce a more perfect effect in a distant patient than in the medium is clear from the example of the Moon just given and also from the familiar example of impulse. For if one moves a sling or rod by hand in a circular motion whose center is toward the hand, the distant extremity receives a greater impulse than the part near the hand, since it moves more quickly and traverses a larger circle in the same time. This also occurs if one turns a wheel around its axle, for the extreme parts are impelled more than those nearer the axle. Yet these and similar things do not occur without action through the medium, as was explained in the *Physica*, tr. 3, d. 3, n. 3. That the quality received in the obstacle influences reflection seems certain at least in light, whose reflection is greater in proportion as the obstacle is more intensely illuminated; hence a greater reflection proceeds from a mirror than from paper.

91. I add that a quality can be reflected even if it is not active of another similar quality. In that event the reflexive action will originate from the principal equivocal agent alone, whose power, just as it could continue the direct action farther if no obstacle were present, can likewise, when as it were repelled, operate backward as much as it would have operated forward. Thus the same impulse produces the direct and reflexive motion of a playing ball. I add further that intension does not always result from direct and reflexive actions received in the same medium, either because they do not coexist, since the direct action has perished when the reflexive arrives, as occurs in the motion of a ball, or because they are not united to one another and do not coalesce into one form because of a certain opposition of offices,

as occurs in visual species; for the direct species represents the object where it is, while the reflexive represents it in the opposite place.

On Intension Through Antiperistasis.

92. It is asked 6º, whence arises the intension of a quality which often occurs on occasion of the surrounding contrary. Intension of this kind is said to occur through Antiperistasis, for "Antiperistasis" signifies the same as "besieging" or "surrounding obstruction by the contrary." Thus subterranean places and well waters become colder in summer than in winter; thus hands grow warm through contact with snow; thus the stomach is warmer during winter than during summer, from which it results that one is then hungrier and digests food more easily. Thus also swimmers feel hunger and inhabitants of cold regions require more food. Some deny that in these and similar cases there is in reality a greater intension of qualities, although to senses preconditioned by winter cold well water, for example, or a subterranean place seems warmer in winter, and conversely colder in summer, because the sensory organ is then hotter. They say that this is evidently demonstrated by the experiment of a thermometer which, as the author of the Burgundian Philosophy relates, when placed at Paris in a fairly deep subterranean cave retained the same height of liquid in every season of the year. Therefore that cave was not warmer in winter than in summer, otherwise the liquid of the thermometer would rise in winter and descend in summer.

93. But first, even if deception of the senses is granted as regards the experience of cold and heat in subterranean places, true intension through Antiperistasis cannot be denied in the heat of the stomach and very many other cases. Next, as regards the thermometer, Fr. John Baptist de Benedictis, tom. 2, Philos. l. 4, q. 3, c. 2, reports the contrary experience. Hence the experiment just objected is suspect or deceptive. For although a thermometer does not err in indicating the degree of cold or heat affecting the ambient air, it could have happened that the Parisian cave, because of a peculiar disposition of the place, did not afford easy exit or entrance to vapors and therefore retained the same temperature throughout the year. Hence from it a general rule is wrongly taken for other caves. Given, therefore, true intension through Antiperistasis, Philosophers disagree concerning its cause. Some think that a remitted quality intensifies itself more in the presence of a contrary, which cannot stand from what was said above. Others bring forward other causes, which the Excellent Doctor reports and effectively attacks, cit. sect. 9, n. 14 sqq. More probable is the

response of the same Excellent Doctor, which others commonly follow, namely that a quality is intensified by the surrounding contrary occasionally and remotely; proximately, however, it is sometimes intensified by an extrinsic agent which on that occasion is detained there, and sometimes by an intrinsic agent, namely when on that occasion another contrary agent withdraws, upon whose departure the substantial form produces an intension connatural to itself.

94. For example, the heat of the stomach in winter, or while the north wind blows, is intensified by fiery spirits detained in the stomach because, the pores being obstructed by cold, transpiration is then less. Conversely, in summer the stomach grows less hot because, the pores being relaxed by heat, the spirits exhale in greater abundance. Yet we use colder foods in summer because then the internal heat ought to be tempered, lest it conspire with the external force of summer heat to excite fevers. Hands grow warm through contact with snow because the internal spirits flowing thither, or circulating there, are more detained and accumulated by obstruction of the pores. Well waters and subterranean places become warmer in winter from fiery exhalations detained beneath the earth because the passages of the earth are then blocked and the external air, denser and colder, impedes their ascent. Conversely, in summer they become colder from an intrinsic cause, because then, the passages of the earth being opened, the hot exhalations fly out and less retard the action of the substance of water or of vapors colder by their nature. An immense quantity of fiery exhalations is generated beneath the earth throughout the year from various minerals, as is known.

CHAPTER V.

On the Resistance and Reaction of Qualities, and Also on the Succession and Continuity of Alteration.

95. It is certain that contrary qualities fight one another in some manner. For even at the beginning of the World, as Naso sang:

"Cold things fought with hot, moist with dry,
Soft with hard, and weightless things with weight."

But since there is no struggle without resistance, which can be defined as "an effort to impede the action of the opponent," common Philosophy therefore acknowledges resistance in natural things and divides it into "active and formal." Active resistance is that which is founded in active power as such, and is given when one agent endeavors to impede the action

of another by producing or conserving a quality contrary to it, for example when something hot impedes the action of something cold by conserving heat in itself, or producing it in the cold thing itself, or in some third patient for whose possession they contend. Formal resistance is that which is founded in informative power as such, or in the tenacity of a form refusing to lose possession of its subject, and is found when any quality or form, in the presence of a contrary agent, endeavors to retain its own existence and inherence and thereby impede production of the contrary form in the subject which it informs. To these is usually added "negative" resistance, which consists in the mere incapacity of a subject to receive some form. In this manner an opaque thing resists light, and celestial matter, if specifically distinct from sublunary matter, resists fire. But this resistance, since it is attacked by no contrary, is improper or no resistance at all; otherwise an Angel would truly resist a wound or a color.

96. Each resistance, active and formal, if considered in first act, consists in the requirement of operating or informing the subject notwithstanding the presence of the contrary. If considered in second act, it consists in actual operation or information insofar as it induces the absence of an action possible from the present contrary. Each, while remaining in first act, is called inefficacious resistance, but efficacious when it passes into second act. Some hold that efficacious active resistance, or active resistance in second act, can exist without operation, namely if there are two contrary agents, for example cold and hot, equal in powers and equally applied to the same patient preoccupied by no quality. For then each will produce four degrees of its own quality and neither will act farther, but one will effectively impede the other from producing a fifth degree, certainly through equal requirement alone. Yet this example proves nothing, because then efficacious resistance on the part of what is hot consists in the actual production or conservation of the fourth degree of heat, incompossible with the fifth degree of cold; and the same occurs conversely in the resistance of what is cold. *One may say:* prior to production of the heat God prepares concurrence for the cold thing to produce only four degrees. Therefore denial of concurrence for the fifth degree, which is as it were the effect of the resistance of the hot thing, does not proceed from production of heat but from the requirement of the hot thing alone. I distinguish the antecedent: if "only" is taken precisively, I grant; if exclusively, I deny the antecedent and the consequence. For just as, when something hot as eight expels one degree from something cold as eight, God, prior to production of the heat, prepares concurrence for the cold thing to conserve seven degrees in such a way that he does not positively exclude concurrence for conserving the eighth, but bears himself

as it were precisively until the first degree of heat is introduced, otherwise there would not be a priority of introduction of one over expulsion of the other, contrary to common doctrine, so one must reason no differently in the proposed hypothesis.

97. Nevertheless I do not judge it inconvenient that resistance be in some measure efficacious through the requirement of resistive power insofar as conjoined with an operation or information which is not physical but moral. Certainly in formal resistance this commonly occurs; for the seventh and eighth degrees, in the instant of their expulsion, when they no longer physically inform the subject, resist efficaciously for the remaining degrees which are not expelled in that instant. Indeed every resistance, even when it succumbs, is always efficacious to some extent, namely as regards the effect of diminishing, retarding, or rendering the contrary action difficult; otherwise there would be no image of struggle. Yet it is then called inefficacious because it does not remove the absolutely victorious action. Hence if something hot as eight attacks something cold as one, even if it conquers in the first instant, that one degree of cold truly resists by rendering the action of the hot thing difficult, insofar as that action requires greater power on the part of first act in these circumstances than in others, and therefore the agent does not produce as many effects in that instant as it would otherwise produce, because it makes, as it were, a greater expenditure of powers.

98. If one asks whether formal and active resistance always concur in the same thing, I answer 1º: often the same form resists simultaneously actively and formally, as though fighting offensively and defensively at once. Thus the heat of the hand resists applied snow according to those degrees which are not lost in the first instant. It resists, I say, actively because it melts the snow to some extent, and formally because by retaining its inherence it impedes introduction of contrary degrees. I answer 2º: active resistance can be found without formal resistance. Thus in water, while it is heated by fire up to the hundredth degree, the substantial form actively resists the heat because it endeavors efficiently to conserve its own cold; yet it does not resist formally because it is not incompossible with eight degrees of heat in the same subject, nor can it be expelled through them. I answer 3º: formal resistance is often found without active resistance, just as among men purely defensive resistance often occurs without offensive resistance. Thus whiteness, although it does nothing, resists blackness. Heat existing in water, against which it acts in no way, resists the substantial form of the water insofar as that form endeavors to expel the heat by production of cold. Thus also in glowing iron and metals melted by fire the substantial form resists its

own expulsion when it no longer reacts upon the fire. *One may say:* in these and similar cases the conserving cause of the form actively resists. But against this: often a form, for example the heat of water removed from fire or the form of iron, is conserved by the first cause alone, which does not actively resist, both because it does not act with an innate appetite and because it freely and spontaneously assents to the requirement of the stronger contrary.

99. It is commonly said that formal resistance is less where activity is greater, and conversely, nature providently distributing its defenses to each thing in this manner. This is indeed true for the most part in substantial forms; for fire is extinguished more easily than water is corrupted, and an animal dies more easily than a diamond is corrupted. In contrary qualities, however, although it is usually said that heat has greater active resistance and less formal resistance than cold, and the same is said of moisture with respect to dryness, this nevertheless appears difficult. For that which resists more actively wears down or weakens the powers of the contrary more, and by this very fact defends itself more, which is to resist formally more. Hence, if something hot as eight is applied to something cold as eight, in the first encounter it not only attacks more by producing two degrees of heat and receiving only one of cold, but also defends itself more by conserving seven degrees in itself, while the cold thing conserves only six. Nevertheless it could be said that although heat defends itself more actively, it resists less formally because it yields to lesser activity. For perhaps the activity of something hot as eight is fourfold relative to that of something cold as eight, which is clear from the speed with which fire melts ice. If, therefore, in the first encounter two degrees are expelled from the cold thing and one from the hot thing, the activity conquering two degrees of cold is four times greater than that which conquers one degree of heat; consequently the activity to which each degree of cold yields will be twice as great as that to which one degree of heat yields. *One may say:* formal resistance ought to be equal in all things, since all equally require conservation of themselves. I answer: the requirement of conservation is not equally robust in all, as is clear in fire and water, iron and diamond. Moreover, greater density of matter often helps. A stronger requirement of the conserving cause also often helps, for this is why a quality is expelled with greater difficulty when it inheres in a substance of which it is a property.

100. From what has been said reaction can now easily be explained. It is nothing other than actual active resistance by which one contrary, attacked by a stronger other, in turn produces in it something of its own quality, by which it diminishes its powers to some extent. The weaker contrary is called

in the present matter the "patient" and the "reacting thing," and its operation "reaction"; the stronger contrary is called the "agent and re-patient." But if both are equal in powers, they will mutually act and react. This character of contraries is signified by that philosophical axiom, "An agent, in acting, is acted upon in return," which common experience confirms. For glowing iron heats water and is cooled by it; a stone applied to a spring communicates cold and receives heat; ice chills the hand and is melted by its heat; warm water, if mixed with cold, tempers and is tempered; and so in innumerable others. Yet for that maxim to hold generally, it requires several conditions. 1º That the agent and patient be of the same order, for God is not acted upon by a creature. 2º That the agent be within the sphere of activity of the patient; for the Sun is not acted upon by the earth, nor fire by a slightly cold and somewhat distant hand. 3º That agent and patient possess matter of the same species. 4º That the agent attempt to introduce a quality contrary to the quality of the patient; hence an object producing a species in the eyes, and a lamp producing light in a wall, are not acted upon in return. 5º That the patient not be so defenseless as to be completely conquered in the first encounter. Hence something hot as eight applied to something cold as one is not acted upon in return; nor likewise at the end of the struggle, or in the final instant in which the entire resistance of the patient succumbs, or even in the penultimate instant in which it has already been reduced to extreme weakness or to the lowest degree.

101. What has thus far been said concerning resistance and reaction suffers certain difficulties which must be solved. *Objection 1:* resistance is either between equals or between unequals. But both are repugnant. Therefore. The minor is proved: if it is between two equals, neither conquers nor is conquered. Therefore the resistance of each is simultaneously efficacious and not efficacious: efficacious, because it is not conquered; not efficacious, because it does not conquer. But if it is between unequals, it is naturally necessary that the stronger prevail and conquer. Therefore, if the weaker resists, it will desire something naturally impossible, since it desires to conserve itself or its effect in these circumstances. The objection absurdly proves that two men or two armies cannot fight one another, nor one be conquered by the other with resistance. Therefore I deny the minor, notwithstanding the proof. For first, even if two contraries are equal, they can simultaneously conquer and be conquered as regards distinct degrees. Suppose something hot as eight and something cold as eight are equal in power. Nevertheless the activity of the hot thing in the first instant surpasses the formal resistance of the cold thing as regards its eighth degree, which is not assisted by the others in formally resisting its own expulsion,

although higher degrees resist for themselves and for the lower because they need them for existing, while lower degrees do not resist for the higher since they can exist without them. For the activity of the hot thing in the first instant is the activity of seven degrees of heat, which it is no wonder should conquer the formal resistance of only one degree of cold. For the same reason the activity of the cold thing conquers and expels in the first instant the eighth degree of the hot thing. And so successively both mutually conquer one another in the following instants, until they alter each other to the fourth or some degree, at which through lack of power neither any longer acts upon the other, but both cease from the struggle.

102. But if the two contraries are unequal, the stronger prevails absolutely because it inflicts more damage than it suffers. Nevertheless the weaker, unless it perishes completely in the first encounter through excessive weakness, also prevails relatively by conquering the formal resistance of the stronger as regards some degree or part of a degree. For if, for example, something hot as eight is applied to something cold as six, it will indeed expel two or three degrees of cold in the first encounter; but the three others remaining in the cold thing will by their activity overcome the formal resistance of the hot thing as regards the eighth degree or part of it, namely by reacting some cold. In this there is no natural impossibility, since the eighth degree is the weakest of all in formal resistance. Hence it is clear how the patient, although weaker, can react without violating the other philosophical maxim, namely that "Action proceeds from the proportion of greater inequality." The sense of this maxim is that, if two contraries contend, one cannot act or react upon the other except insofar as the activity of one is greater than the formal resistance of the other. This is verified even in the reaction of the weaker contrary, as we have now explained. But the point will still be pressed: those degrees which are expelled desire their own conservation in the presence of the stronger contrary; otherwise they would not resist. Therefore they desire a conservation naturally impossible. I distinguish the consequence: naturally impossible essentially and intrinsically, I deny; naturally impossible accidentally and extrinsically, because here and now there contingently and extrinsically exists another naturally prevailing right, I grant the consequence. There is nothing absurd in this, as is clear from the doctrine given and proved in the *Physica*, tr. 1, disp. 3, c. 2.

103. *Objection 2:* something hot as eight is not acted upon in return by something cold as seven in the first instant of application, for it is supposed to be applied with eight degrees, none of which can therefore be lacking in that instant. Moreover, neither is it acted upon in the following instant, in

which the cold thing is already weaker. Therefore never. The objection proves that something cold as seven can likewise never be acted upon by something hot as eight, which is plainly false. Hence I deny the major together with its appended proof, because something hot as eight in the first instant of application does not positively possess eight degrees, but, for the prior sign, prescinds from that degree or those degrees which the cold thing has a right and activity to expel by reaction in the same instant. Hence the action of the hot thing does not arise from the degrees which are then expelled, but from the others which persist. It is therefore said only to be applied as hot as eight because in the immediately preceding instant it positively possessed eight degrees; for the same reason dark air is said to be applied to the Sun, or something cold as four to fire, although in the very instant of application it ceases to be as four. *One may say:* therefore something positively hot as eight will never be applied, nor will the eighth degree ever act. I deny the consequence, because often the cold thing is so weak that it has neither a right to react nor the proportion of greater inequality mentioned in n. 102. Then the hot thing will be applied with eight positive degrees and will act.

104. *Objection 3:* a quality never resists its own expulsion; therefore formal resistance is never given. The antecedent is proved: because it does not resist in the instant in which it exists, for then there is no danger of expulsion or cessation, since it is altogether repugnant for it not to exist on the supposition that it exists. Nor does it resist in the instant in which it no longer exists, or in which it is expelled, for formal resistance is identified with actual existence or inherence, which is no longer then given. I answer: a quality formally resists in second act for the instant in which it exists through actual inherence, which is the actual resistance itself. Nor does it matter that on the supposition of inherence there is no longer danger of expulsion; for this is the same as saying that there is no longer danger for one resisting of not resisting on the supposition of resistance, which is entirely true and only proves that the danger ceases by virtue of resistance in second act. Yet for that time there can be struggle or attack by the contrary, not insofar as it strives to expel the quality on the supposition that it exists, but insofar as for the prior sign it endeavors that it not exist.

105. It must be noted, however, that every degree of a quality in the instant in which it exists also resists in first act for the following instant, in which therefore, if it perishes, it does not perish without resistance. The reason is that any thing whatsoever, while actually existing, requires and as it were asks from the Author of nature that its conservation be continued, and consequently that concurrence not be prepared for a contrary agent to

interrupt that continuation. Otherwise why does the heat of water not immediately perish when it is removed from the fire? But this requirement in instant A for B is in reality formal resistance, and it will become efficacious and in second act if God in its favor wills to continue conserving the form in B by denying concurrence to the attacking contrary. It will be inefficacious if God as Author of nature does not thus assent to such a requirement. Yet it will never be so inefficacious that it does not obtain at least the effect of diminishing or rendering difficult the action of the contrary, from what was said in n. 97. And when the eighth and seventh degrees are expelled from something cold as eight, their resistance will be efficacious for that instant as regards conservation of the sixth and the others, for which they also resist, as was noted in n. 101. Thus soldiers fighting in the front line, although they perish while resisting, nevertheless cause conservation of the others by turning the assault of the enemy upon themselves.

106. *One may say:* therefore, while the eighth and seventh degrees of cold are expelled in instant B, there is then no present resistance of theirs. I distinguish: physically present, I grant; morally or virtually present, I deny the consequence. That resistance which physically existed in instant A for B is no longer physically present in B if expulsion of the degrees then occurs; nevertheless it is morally present insofar as, as known by the Author of nature, it moves him, or obtains from him in instant B that he not prepare concurrence for the contrary agent except in such a manner that its action is rendered more laborious and difficult. *The point is pressed:* degrees existing in A, although from then they require to act in B, do not truly act if they are expelled in B. Therefore neither do they truly resist, although from A they require resistance in B. I deny the consequence, because physical action requires a physically present existence, while for resisting a morally present existence suffices. Thus a sin physically past resists infusion of grace, and a benefit physically past resists ingratitude. *The point is pressed again:* a degree existing in instant A from then requires to be conserved not only in B but also in C and subsequent instants. Therefore, although expelled in B, it will still resist in C and afterwards. I deny the consequence, because the degree requires conservation in C and subsequent instants only insofar as it requires its conservation to be continued, or not interrupted. But if it is interrupted in B, the whole requirement completely vanishes and no longer thereafter exists morally, because it is no longer accepted by the Author of nature in the order of preparing concurrence with limitation for the contrary agent; otherwise the present action of heat would be diminished because of the requirement of cold from the previous year. It is otherwise in instant B

itself, for then, for the sign prior to expulsion, interruption is not yet understood, and therefore the moral existence of the resistance which immediately before pre-existed physically has place.

107. *Objection 4:* something cold as eight cannot defend its eighth and seventh degrees from the attack of something hot as eight in the first encounter. Therefore neither can it react upon it. The consequence is proved: because if the cold thing had powers for reacting, it ought rather to direct them toward conserving its own degrees in itself, because it is more in its own interest to conserve cold in itself than to produce it in the hot thing. Confirmation: the formal resistance of each thing ought to be greater than its active resistance, since each nature more strongly shrinks from not existing than it desires to act. Therefore if nevertheless the formal resistance of the cold thing succumbs in the presence of the hot, *a fortiori* its active resistance, or power of reacting, ought to succumb. To the objection I deny the consequence together with its proof, because if the cold thing reacts through quality alone, it will react through the six degrees which it does not lose in the first encounter. But the activity of these, although sufficient to produce in the hot thing the first degree of cold, cannot be turned toward conserving the seventh and eighth degrees, which they do not contain, since these are higher. But if the cold thing also reacts through substance, for example if it is ice, not even then can its powers suffice for conserving those degrees in itself, because for this it would be necessary by its activity to overcome the activity of the hot thing, which is wholly directed against those degrees. Yet in the first encounter the powers of the cold thing suffice for reacting in the hot thing the first degree of cold, because for this it suffices by its activity to overcome the formal resistance of the eighth degree of heat, which in fact occurs from what was said in n. 102. To the confirmation, let the antecedent pass, and I distinguish the consequence: *a fortiori* the active resistance proper to those degrees whose formal resistance succumbs, and when it succumbs, ought to succumb, I grant; the active resistance proper to other degrees whose formal resistance does not yet succumb, I deny the consequence. We do not say that the cold thing reacts according to the degrees which it loses, but according to those which remain.

108. *Objection 5:* therefore a small amount of air intervening between ice and fire will simultaneously receive heat and cold and will be moved by contrary motions if the ice reacts upon the fire. I answer: that air will not be moved by contrary motions, because it will receive heat and cold only in the degree in which these qualities can be associated in the same subject; for example, if the air receives five degrees of heat from the fire, it will receive three degrees of cold from the ice.

Whence the Succession of Alteration Arises.

109. Since we commonly experience both intensive and extensive alteration in qualities having contraries to occur successively, that is, not wholly in an instant but through a latitude of time, as when wood or water gradually grows hot from applied fire, or when water intensifies its own cold in itself by gradually expelling pre-existing heat, the question is whence this succession arises. The reason for doubt is that fire, for example, does not possess greater power in the second instant than in the first; for all the heating power which it exercises in the second it undoubtedly already possessed in the first. Why, then, does it not produce in the first instant of application even that heat which it adds to the water in the second? And, since the same reason holds of the third and subsequent instants, why does it not produce the entire intension of heat in the first? Omitting other opinions, I answer with the common opinion of our authors, especially the more recent, that intension occurs successively because the formal resistance of the contrary degrees is successively diminished. For this I suppose what I already noted above in n. 101, namely that higher degrees resist not only for themselves but also for lower degrees, though not conversely. Hence it follows that fire which in the first instant expels from water the eighth and seventh degrees of cold cannot simultaneously expel the sixth, which it expels in the second instant, because in the first a greater resistance fights for the sixth degree than in the second. For in the first instant not only the resistance of the sixth itself fights, but also that of the seventh and eighth; afterwards in the second instant these no longer resist, from what was said in n. 106, and therefore only the resistance of the sixth degree then fights for itself, which consequently can be conquered more easily. Therefore, although in the second instant the activity of the hot thing does not increase, it can then rather than in the first produce the third degree of heat because resistance for the sixth degree of cold, which is contrary to the third degree of heat, then decreases. The same reason holds proportionately for the remaining instants until the struggle is ended.

110. *Objection 1:* resistance for the sixth degree is not greater in the first instant than in the second. Proof: because the resistance of the eighth and seventh degrees is inefficacious for conservation of themselves. Therefore it is also inefficacious for conservation of the sixth degree, for it does not desire another's conservation more than its own. Therefore it does not assist or render the resistance of the sixth more efficacious. I answer: the

resistance of the eighth and seventh degrees can be more efficacious for conservation of the sixth than for their own, not because it desires the former more, but because through the natural order of degrees the contrary activity attacks the eighth and seventh before the sixth, which therefore is not immediately attacked until it destroys them as shields, so to speak. Thus soldiers who fall in the front line often resist more efficaciously for others than for themselves.

111. *Objection 2:* although in the second instant formal resistance for the sixth degree is diminished, active resistance for the same degree is increased from another source; for the activity of the water, now unoccupied with conserving the seventh and eighth, is wholly recalled to conserving the sixth. Therefore its expulsion is not easier in the second instant than in the first. I answer: first, the objection does not proceed when the attacked quality is not conserved by its own substance but by the first Cause, as heat in water or intense cold in wine. Next, neither does it press when the cold of water is attacked, for in the second instant the activity of the water, although freed from conservation of the higher degrees, is otherwise occupied both in reacting and in striving to recover the lost degrees and to expel from itself the degrees of heat received in the first instant. Although this effort is frustrated, it nevertheless as it were distracts and diverts the activity of the water elsewhere, lest the whole be recalled to conservation of its sixth degree.

112. *Objection 3:* just as formal resistance of the cold thing decreases in the second instant, so the activity of the hot thing decreases; for if through reaction it lost the eighth degree in the first instant, in the second it loses the seventh, and therefore no longer acts through seven degrees as in the first instant but only through six. Therefore expulsion of the sixth degree of cold is not easier in the second instant. I answer: the activity of the hot thing does not decrease as much in its line as the resistance of the cold thing decreases in its own, for the activity decreases by one degree while the resistance decreases by two. But if one turns the argument toward the reaction of the cold thing, which likewise successively diminishes the heat of the contrary, and yet in the second instant the activity of the cold thing decreases more, or not less, than the resistance of the hot thing, I shall deny the latter. For although the activity of the cold thing may perhaps decrease by two degrees and the resistance of the hot thing only by one, nevertheless the part of heat which is expelled through reaction in the second instant is not the whole seventh degree, although for clarity it is usually so called, but a third or fourth part of the seventh; and therefore its resistance decreases in a fourfold or fivefold ratio, for it was four or five times greater in the first

instant, in which it was assisted by the resistance of the whole eighth degree, whereas in the second it resists by itself alone. But the activity of the reacting cold thing does not decrease in this manner through loss of two degrees, since of the six degrees conserved in the first instant it still retains four in the second. If, however, it is supposed reduced to the lowest degree, it no longer reacts at all, from what was said in n. 100.

113. Add that, although in the second instant the activity of the hot thing loses one degree, it is then strengthened anew by the assistance of the two degrees produced in the first instant. These, although lower, can instrumentally assist the higher degrees surviving in the hot agent to produce the third degree of heat, according to the probable doctrine of n. 79. *One may say:* although the activity of the hot thing is assisted by those two degrees, it is otherwise occupied to the same extent in conserving them in the second instant. Therefore it is not rendered stronger or more unimpeded by such assistance. I answer: in the second instant far less activity suffices to conserve those two degrees than was required to produce them in the first, because in the second the resistance of the contrary degrees wholly ceases, whereas in the first it existed virtually or morally and rendered their production difficult, and could be conquered only by the entire activity of the hot thing. Therefore in the second instant conservation of such degrees occupies the activity of the hot agent only as regards two or three lower degrees, but leaves it unimpeded as regards three higher degrees. These are rendered more active and robust by assistance of the two degrees produced in the first instant than if they acted alone. Nor was there place for such assistance in the first instant, in which the higher degrees of the agent, wholly occupied in conquering the resistance of the contrary as regards the degrees then being expelled, could not elevate the power of the first and second degrees of heat then produced in the patient to produce the third degree in the same instant.

114. What we have said of intensive alteration must likewise be said of extensive alteration, namely that it occurs successively because the resistance of the contrary quality extended in the patient is successively diminished. For when a piece of wood one palm long, for example, which is supposed cold as six, is applied to fire, the part nearer the fire grows hot before the more remote because the nearer part of the cold resists less formally. For it resists by itself alone, protected by no shield, since it is immediately attacked in itself by reason of immediate application. But the more remote part resists in the first instant both by itself and through the nearer part, which is for it as a shield or bulwark. In the second instant, however, after the nearer part has been conquered, since that more remote

part is now immediately attacked, it is more easily conquered. The same occurs in the third and subsequent instants to the other parts of the wood constituted within the sphere of the fire but still more remote from it. *One may say:* one or two degrees of heat which the first part of the wood receives in the first instant can in that same instant immediately attack the second part and therefore heat it simultaneously with the first. I answer: that degree can do nothing in the first instant because it lacks the proportion of greater inequality relative to the cold existing in the second part. It can, however, act in the second instant because it is then assisted by the acting fire, which now labors less in conserving the heat of the first part of the patient, as we said in the similar case in n. 113.

Whether Successive Alteration Is Continuous.

115. It remains to discuss whether alteration which occurs successively occurs continuously, or with no interval of time interposed, so that in every instant a new part of the quality increases until the whole intension or extension contained in the power of the agent here and now applied is completed. Many affirm this, whose opinion can be proved because the resistance of the contrary quality from which the succession of alteration arises is continuously diminished. For it is less in the second instant than in the first, less in the third than in the second, and so of the rest. Therefore there is no reason why the agent should interrupt its action and be idle in any instant, since in any instant designated for idleness no greater difficulty in operating would occur than in the following instant. Yet not a few others, both older and more recent, whom Fr. Peynado cites and follows, tr. 1, *De Gener.* d. 4, s. 3, deny this. They indeed admit continuity through several instants in the successive motion of alteration, yet within the whole course of succession they acknowledge certain small pauses, more or fewer according to the diverse character and activity of agents, so that if agent A pauses, for example, at every third instant, agent B, twice as strong, pauses only after a continuation of five or six instants.

116. The negative opinion agrees better with experience. For first, as regards extension, if fire extended heat by continuous succession through its sphere, let that sphere be a thousand paces, so that there were no instant in which it did not heat a new point of place, it would follow contrary to manifest experience that it would heat the entire sphere in the blink of an eye. This is clear because more instants pass in the blink of an eye than there are points in a line a thousand paces long. For it is certain that the Sun and other celestial bodies traverse in their motion a space greater than a

thousand paces in the blink of an eye, yet they do not acquire more than one point of space in each instant. Next, as regards intension, the same experience presses. For if heat in water placed near fire were intensified without small pauses, a great intension of heat would be felt in the blink of an eye, since it would consist of as many degrees or particles as instants fly past in that blink, and therefore of more than there are parts of heat extended through a thousand paces; yet in so brief a time the water scarcely receives sensible heat.

117. Accordingly, to the reason adduced for the contrary opinion it must be said that the rests or small pauses in successive alteration do not arise from the resistance of the contrary quality or from any other source than the native condition of finite agents, whose limited power cannot continue successive motion through several instants without interspersing certain rests or small pauses in order, as it were, to recover its powers. See what was said in the *Physica* concerning the continuum, where we defend similar small pauses in local motion. Nor should it seem strange that recourse is had to the nature or limitation of agents when experience is manifest and a reason is unavailable; for all have recourse to nothing else in explaining why approximation is necessary for acting. Note here that in this question, as often elsewhere, we have supposed the Continuum to be composed only of finitely many indivisibles, because we judged this opinion preferable in the *Physica* and think that questions bearing upon this matter are not so much explained as confused by an infinity of proportional parts.

SYNOPSIS ON THE WORLD[1]

— PROOEMIUM —

I had determined to treat here of the subjects proposed in the title, not altogether hastily or superficially, and I had prepared no small amount of material for the treatment. But, having observed that this could not be done worthily without causing this third Part of the Philosophical Course to grow into an unduly large volume, both because of the exceedingly abundant crop of matters and because it is everywhere necessary to engage with Corpuscular Philosophy, which here especially prides itself on its specious novelty, here applauds itself for having disclosed the mysteries of Nature, here displays its familiarity with Nature herself and its sharing in her secrets, especially those concerning the quiddity of light, heat, fluidity, the gravity and levity of bodies, magnetic and electric force, and finally the constitution of mixed bodies, I therefore preferred to insert here only a brief synopsis and to defer the exact treatment to another volume, which, God granting, I shall publish separately. Furthermore, the labor of this three-part Course is directed to this end: that beginners aspiring to Scholastic Theology may be suitably instructed and exercised in philosophical doctrines and controversies. For this purpose it is not especially useful to spend a long time on these matters, however pleasant they may be and otherwise worthy

[1] Synopsis of the treatises on the world, the heaven, the elements, and mixed bodies.

of a philosopher's knowledge. But if anyone wishes to know them more curiously, he will find them abundantly set forth in very many readily available books, and he will easily understand them provided that he reads after being imbued with the principles of general Physics. For they are not of such arduous difficulty that they separately require new instruction or a new scholastic exercise. In this Synopsis, therefore, which I judged should not be omitted altogether, lest the student of Physics be entirely ignorant of what is lacking here and must be sought elsewhere, I shall proceed very briefly, reporting rather than discussing the notions of things, the questions, and the common doctrines, except for one or another Question which we have deferred hither from general Physics.

CHAPTER I.
On the World.

1. The various acceptations and definitions of the World, or Universe, may be seen in the Conimbricenses, in 1, *De caelo* c. 1, q. 1, ar. 2. Here the World is taken, from Aristotle, l. *De mundo ad Alexandrum*, as identical with a "machine," or "structure joined together from heaven and earth, and from those natures which are contained within it or inhabit it"; we add the latter phrase so that the Angels also may be included. Concerning the World so understood, Question 1 asks whether there is, or can be, more than one. I answer 1º: there is in fact only one World. All Catholics maintain this, and it is entirely consonant with various passages of Sacred Scripture cited by the Conimbricenses, in 1, *De caelo* c. 8, q. 1, ar. 2; nor does any indication or probable reason favor the contrary opinion of certain ancient pagans or heretics. I answer 2º: several Worlds can be made by God, since there is no incompatibility from any consideration, either on the part of the divine power or on the part of the effects themselves. No one dissents except certain pagans and heretics, at least if Descartes be excepted, who thinks that there is no place for another World because the matter of this World occupies all imaginable spaces. This opinion rests upon that doctrine of Descartes which is false in a thousand ways, namely, that wherever we imagine extension, there is matter.

2. Question 2: whether the World is from eternity, or could have been? I answer 1º: that the World was freely created by God in time, or together with the beginning of time, is a Catholic truth which Fr. Suárez proves from Scripture, the Councils, and the Fathers, l. 1, *De opere sex dierum* c. 2. Hence Aristotle gravely erred in thinking that the World is from eternity by a necessary emanation from God. Others erred still more shamefully by

positing the World as uncreated, or at least as made from uncreated matter. Nor is the doctrine of Descartes mentioned in the preceding number easily cleared of the error of eternal matter. For since we imagine that, in the space which this World now fills, extension existed before the World and before any beginning of time, it follows that matter has no beginning if that extension presented to the imagination truly is matter. Moreover, that the World, and any creature whatsoever, could have had a beginning can be demonstrated from its contingency and from the dominion and liberty of God. That it did in fact begin was more fitting, so that both the dependence of creatures and God's liberty in acting, together with His most complete sufficiency unto Himself and His need of nothing outside Himself, might thus be made more manifest. This likewise is one among the other reasons of fittingness given to one who asks why God did not produce the whole Universe simultaneously, but successively completed it over the course of several days. On this matter the interpreters of Sacred Scripture may be seen on Gen. 1, and the theologians in *De opere sex dierum*. It also belongs to them to explain in what sense Sacred Scripture teaches that the World will at some time perish at God's command. Whether, however, the World can by its nature endure forever is treated by the Conimbricenses, in 1, *De caelo* c. 12, q. 1. I answer 2º: by the absolute power of God the World could have been created from eternity as regards permanent things, but not as regards successive things. This is gathered from what was said in *Physica* tr. 3, d. 2, c. 5.

3. Question 3: whether the World is perfect and best, such that no better one could be created by God? I answer 1º: the World is best according to its order to the end assigned to it by the Divine Craftsman, namely, such and so great a glory of God, or manifestation of His attributes, namely wisdom, goodness, power, justice, etc. Consequently it is also best according to the order of the parts within the whole which is required for that end, since it entails a marvelous harmony of the whole machinery of the World, in which nothing is without order, at least extrinsically, so that even monsters among physical things and sins among moral things contribute in some manner to the beauty of the Universe, as the Holy Fathers, especially St. Augustine, elegantly observe. I answer 2º: the World, taken entitatively, although it is most perfect as regards the classes of things, or generic grades, for it contains them all and no creature seems possible which would not belong to some already existing grade, can nevertheless be made more perfect as regards the species of things, as is sufficiently evident from what was said in *Physica* tr. 3 concerning the incompatibility of a most perfect creature.

4. Question 4: whether the World is living or animated? I answer: among the pagan philosophers some thought that the World was a certain great animal and that all its parts were informed by one and the same soul. But this opinion, which today is reckoned among dreams, is strongly rejected by the Conimbricenses, in 2, *De caelo* c. 1, q. 1. I merely note here that many of the modern Corpuscularists, whom Tosca follows, do not very consistently deny life and a soul to the World for the same reason by which they grant them to a dog or horse. For they say that the soul of the latter consists in a portion of subtler and more mobile matter which, agitated within the body, causes various motions in it. But this kind of soul belongs also to the World if, according to these authors, the entire body of the World and all its members are intimately pervaded by the exceedingly subtle and mobile ethereal matter which is the cause of very many motions in its individual parts.

5. Question 5: what is the system of the World? I answer: the system of the World is the coordination, or local disposition, of its great parts, namely the Elements and celestial bodies, in this machinery of the World, whose figure all suppose to be spherical, and which astronomers demonstrate to be so by reason and experience. Or rather, at present we are concerned only with the coordination of the Earth and the stars, especially the Planets, in relation to the center of the World. On this subject, omitting other systems which may be seen in Fr. Riccioli, Almag. l. 9, sec. 3, three systems are famous at the present time: the Ptolemaic, Copernican, and Tychonic. The first, established by Claudius Ptolemy, places the earth immovable at the center of the World. It then says that all the Planets move in a circle around the earth as their center, placing them in such an order that one proceeding upward from the earth encounters 1º the Moon, 2º Mercury, 3º Venus, 4º the Sun, 5º Mars, 6º Jupiter, 7º Saturn; above Saturn follows the Firmament, or sphere of the fixed stars, which likewise completes its circuit by a daily motion around the same center.

6. The second system, invented or revived by Nicholas Copernicus and approved by Galileo, Descartes, and others, first places the fixed stars together with their sphere as immovable. Then at the center of this sphere, or of the World, it likewise establishes the Sun as immovable. According to Descartes and others the Sun revolves upon itself, yet without departing from that same center of the World. Hence it denies that the Sun is a planet, yet recognizes seven planets because it numbers the earth among them. It then says that six planets revolve around the Sun as their center in such an order of distance that Mercury, being nearest, completes its circuit in three months; then Venus in nearly eight months; then the earth in a complete

year; then Mars in two years; then Jupiter in twelve years; then Saturn in thirty years. The Moon, however, it determines to revolve around the earth within a month. It attributes a twofold motion to the earth: one, which we have said is annual, along the ecliptic, from which motion result the four seasons of the year; the other, a rotation around its own axis from west to east in the space of twenty-four hours, from which motion result days and nights and the rising and setting of the stars.

7. The third system, invented by the distinguished astronomer Tycho Brahe, places the earth immovable at the center of the World and establishes the Moon and Sun, as also the stars of the Firmament, as moving around it. It differs from the Ptolemaic only in this: it so arranges the other planets, namely Mercury, Venus, Mars, Jupiter, and Saturn, that they regard not the earth but the Sun as the center of their circular motion. Of these three systems, although the Ptolemaic commonly pleased philosophers and astronomers before the invention of the telescope, today only the Tychonic is commonly approved by both. For although the Copernican can be approved as a hypothesis, insofar as, if it existed, the vicissitudes of the seasons and appearances of the stars could suitably be explained according to it; and although, furthermore, it cannot easily be convicted of falsehood by arguments drawn from reason, it must nevertheless be rejected absolutely because it is discordant with the authority of Divine Scripture, which clearly signifies that it is not the earth but the Sun that moves, as in Josh. 10, 4 Kings 20, Eccles. 1, Ps. 92, and frequently elsewhere. For this reason the sacred Roman Inquisition condemned the opinion of Copernicus, and Galileo, who had defended it as absolutely true, was compelled to retract it.

CHAPTER II.
On the Heaven.

1. By Heaven we mean not only the Empyrean, situated in the highest place, which is the seat of the blessed and the treatment of which belongs to theologians, but also all that space which contains the stars, and which no one doubts to be corporeal, extended, and integrally divisible. Question 1 concerning this asks whether it is an essentially simple body, that is, not composed of matter and form. The same is likewise asked concerning every other celestial body, namely every star. I answer: the common opinion asserts that it is composite. This indeed is evident if a celestial body is corruptible. But if Heaven is posited as intrinsically incorruptible, as many wish, and as created in the first instant of the World, it may probably be maintained to be simple, because it is probable that a simple body is not

incompatible, and an incorruptible body otherwise cannot give any indication of composition.

2. Question 2: whether a celestial body is naturally corruptible? I answer: it is certain that in the present order of things the whole heaven cannot be corrupted by any natural agent, just as neither can the whole earth, all the water, or all the air. The only doubt is whether celestial bodies can, like the elements, undergo partial corruption. The common opinion of the Peripatetics denies it. But the opposite is unanimously maintained, together with many Fathers of the Church, by the more recent astronomers, whom most modern philosophers, even among the Peripatetics, follow. They prove it from the generation and corruption of comets which have been observed for 150 years, for their parallax, being less than the lunar or almost none, shows that all of them were much higher than the Moon. Parallax is a diversity of aspect, or difference of apparent place, by which, for example, the Moon when observed at the same time from different places on earth is not seen beneath the same stars of the Firmament, but from Salamanca beneath some and from Rome beneath others. This difference appears smaller the higher the star is. They also prove it from spots which are detected by telescope on the Sun, newly generated and afterward corrupted, and increasing and decreasing for as long as they endure. See the author of *Philosophia Burgundica* tom. 5, tr. 1, dissert. 1, c. 2; Fr. Jo. Bapt. de Benedictis, tom. 3, *Philosophia*, l. 1, q. 3, c. 3.

3. Question 3: whether celestial matter is of the same species as sublunary matter? I answer: if celestial bodies are corruptible, this must undoubtedly be affirmed, since no foundation remains for a specific diversity. Add that it is more consonant with Sacred Scripture and the common doctrine of the Fathers that the heavens were formed from the matter of water, as, among others, Fr. Cornelius a Lapide shows on Gen. 1. For in the beginning God created the Earth together with Heaven, namely the Empyrean. He also created the Abyss, that is, the highest waters, with which the whole space from the Earth to the Empyrean was filled. From the greater part of this Abyss He afterward formed the air, the planetary Heaven, and the Firmament, or star-bearing Heaven.

4. The Question, therefore, proceeds only on the supposition that Heaven is incorruptible and was not made from the matter of another body, although it is composed of matter and form. I mean incorruptible by the forces of all possible agents of the natural order, or those not belonging to the supernatural order, for example by the forces of fire, which can be produced by God without limit ever stronger and more active. For incorruptibility which resists only the activity of causes actually existing

does not establish a specific diversity of matter, as will appear from what follows. In this sense, therefore, there are two opinions in the Schools. The first holds that celestial and sublunary matter are of the same species. Thus the Scotists with St. Bonaventure and Scotus, and also several of our own authors, especially the more recent, with Fathers Molina, Jo. Bapt. de Benedictis, Peynado, and others, although it is uncertain whether all those authors speak on the supposition of the incorruptibility which I have now explained. The second recognizes celestial matter as specifically diverse from sublunary matter. Thus the Thomists with St. Thomas, and many of our own with Fr. Suárez, disp. 13, *Metaphysica* s. 11. Our conclusion agrees with them.

If the Heaven Is Entirely Naturally Incorruptible, Celestial Matter Is Specifically Distinguished from Sublunary Matter.

5. Proof 1º: matter specifically different from sublunary matter is possible, namely matter limited to some determinate species of forms, as we saw in *Physica* tr. 1. Therefore celestial matter is in fact such, since, perpetually and indissolubly bound to its form, it affords no indication of mutability or aptitude for other forms. The consequence is evident, because in such matter there is by that very fact lacking the foundation upon which we establish sublunary matter as capable of diverse forms, namely its transmutation from some forms into others. Proof 2º: celestial matter is not of itself capable of receiving corruptive qualities; therefore it differs specifically from sublunary matter, since it lacks a very notable intrinsic capacity possessed by the latter. The consequence is valid among the adversaries. Proof of the antecedent: after the matter of Heaven has once had a celestial form, it cannot receive corruptive qualities from any possible natural agent, however active and applied, as is now supposed. But this impotence does not arise from the mere tenacity or resistance of the celestial form. Therefore it arises from an intrinsic incapacity of matter. Proof of the minor: if such impotence arose from the celestial form, that form would either be intrinsically supernatural or would possess an infinite power of resistance. Neither can be said. Therefore, etc.

6. Proof of the major: a form which by its tenacity or resistive force prevails against every exigency and activity of natural agents, even if these increase ever more without limit, either belongs to an order superior to all the active and exigent forces of nature, and thus is supernatural; or certainly possesses a resistive force insuperable by syncategorematically infinite agents, and thus possesses an infinite force of resistance. This is evident 1º

from examples. If a stone, fixed by no supernatural force, could not be moved from its place by any possible impulse of natural agents, it would have infinite gravity. Since mortal sin cannot be removed by any possible merit of a mere creature, it is either infinite in the order of offense, or at least belongs to an order superior to every merit of a mere creature. The natural activity of one agent which no possible natural resistance could withstand would undoubtedly be infinite activity. The same, therefore, must be judged concerning the resistance of the celestial form.

7. Next, from reason: the tenacity, or formal resistance, of a form is greater in proportion as it can withstand more numerous and stronger agents. Therefore it increases in its own genus in proportion as the perfection of the agents which it withstands increases in the genus of activity. If, therefore, such perfection of agents, although increased to infinity, is always overcome or frustrated by some determinate resistance, that resistance must necessarily be infinite. Thus, because a more perfect light is required for a greater vision, if there were an individual light sufficient for visions more and more perfect without limit, it would be a light of infinite perfection. Confirmation: if the resistance of the celestial form were finite, another greater natural resistance could be given. Therefore another could be given which would resist some natural activity to which that lesser resistance would yield, for otherwise it would not be greater in the genus of resistance. Therefore a natural activity will already be possible which the celestial form cannot resist. Consequently that form will not be naturally incorruptible in the sense of the Question.

8. One may say that the form and accidents of Heaven lack a contrary and therefore do not properly resist, because they are not attacked; consequently their tenacity should be called not so much resistance as immunity from a contrary and mere incapacity for corruption. But against this: as is evident from what was said in the treatise *De generatione*, last chapter, passive or formal resistance, as distinguished from active resistance, is nothing other than the tenacity of a form consisting in its exigency for its own conservation in a subject of itself capable of another incompossible form. I mean a tenacity which impedes or weakens the action of an applied agent endeavoring to introduce an incompossible form into such a subject. Such formal resistance is efficacious for as long as, in the divine foresight, it is stronger than the right of the applied agent to introduce the opposite form, and therefore efficaciously demands that the Author of nature not supply concurrence to such an agent. In this way a diamond or gold is truly said to resist fire even though it reacts in no way upon the fire. But the form and accidents of Heaven demand their own conservation in matter which,

according to the adversaries, is of itself capable of every form and corruptive accident, and thus they demand that, even if an agent is supposed to be applied which of itself is productive of an incompossible form, they entirely impede its action and frustrate its endeavor to act, efficaciously demanding that God not supply concurrence to it. Therefore they truly and properly resist, no less properly than the form of gold resists fire.

9. Perhaps it will be denied that in the corruptive agent supposed to be applied to Heaven there can be an endeavor to act upon the matter of Heaven. But wrongly. For although there is no efficacious endeavor, or one in second act, an inefficacious endeavor, or one in first act, cannot be denied if celestial matter is of itself capable of a corruptive quality. Natural agents naturally desire to operate upon an applied subject which is of itself capable of their effect. This appetite, even when it is inefficacious and does not obtain second act, namely when there is present a stronger exigency preoccupying the subject, is truly an endeavor to act. Otherwise nothing would truly resist at the instant in which it is not overcome, because then the appetite of the contrary agent, insofar as it is inefficacious, would not be an endeavor, and there is no resistance where nothing endeavors from the opposite side. How there can be an endeavor or natural appetite toward a naturally impossible terminus, such as the production of a corruptive quality in celestial matter, is an obvious difficulty which all must solve in sublunary things. For whenever the heat of fire overcomes the coldness of water, since there is no victory without resistance, the coldness and the water itself truly resist, and hence innately desire to impede heating and preserve their own state, although this is naturally impossible in those circumstances. Similarly, when the form of gold efficaciously resists fire, it truly frustrates the endeavor of the fire, which nevertheless then regards a naturally impossible terminus, since it cannot naturally occur that an agent prevail against a stronger resistance. The same holds in innumerable other cases.

10. Hence it must be admitted that for an appetite and endeavor to act it is sufficient that the terminus be naturally possible in view of the capacity, considered in itself, of the applied subject, even though it be rendered impossible by the presence of a stronger activity or resistance of another form. For this impossibility is accidental with respect to the subject and the power of the agent considered in itself. Hence one will gather that the form and accidents of Heaven, if they exist in common matter, are truly attacked by applied fire, because an attack among natural things is nothing other than an endeavor to introduce an incompossible form. One will also gather that those accidents do not lack a contrary. For they are naturally incapable of association with heat as eight, for example, in the same common subject,

and they bring with themselves a substantial form incompossible with the form of fire. But this is to be contrary to heat as eight. Otherwise, why are the ultimate dispositions of fire and gold contrary to one another? Certainly accidents lacking a contrary can be associated in a common subject with any other accident whatsoever and are not connected with a diverse substantial form, as is seen in light and quantity.

11. Finally, whatever may be said concerning the name "contrariety," "attack," or "resistance," concerning which the dispute would be merely verbal, it is certain that natural agents have a right to act upon common and applied matter unless a stronger and prevailing exigency stands in the way. If, therefore, they do not act upon the matter of Heaven, although common and applied, and would not act upon it even if they became infinitely more active, the reason is that the stronger exigency of the celestial form for its own conservation and possession of such matter prevails. Therefore in that form there is already an exigency prevailing against the right of all possible agents of the natural order; and this exigency, whether it be called resistance or otherwise, cannot but be infinite, or of infinite strength.

12. Therefore the complete natural incorruptibility of Heaven can be preserved only by an intrinsic limitation of matter to the celestial form, or by its intrinsic incapacity for corruptive qualities. For once this incapacity of matter is posited, the form and accidents of Heaven have no contrary, since contrariety exists only concerning a common subject. Neither are they attacked by any corruptive agent, since no agent endeavors or desires to act upon a subject which in itself is incapable and unapt. Thus fire does not naturally endeavor to heat an Angel. Hence they resist only negatively, and therefore improperly, because merely negative resistance, consisting in the incapacity of the subject considered in itself, is very improperly called resistance, or rather is no resistance at all, since there is no contrary endeavor; otherwise an Angel would truly resist being heated. Finally, neither do they have an exigency for their own conservation prevailing against the right of infinite agents, because no such right is present or can be present. It should be noted here that we do not in the least insist upon the argument familiar to many, namely, that celestial matter cannot have a natural potency which is never reduced to act, such as would be the potency for sublunary forms. For we know that it is sufficient for a natural potency, especially a passive one, that it be reduced to one act among several equally suitable for it and toward which it is divisively indifferent. This would in fact occur in celestial matter even if it did not differ specifically from sublunary matter.

Objections Solved.

13. It is objected: species are not to be multiplied without necessity. But there is no necessity for positing the matter of Heaven as specifically diverse. Therefore. Proof of the minor: the incorruptibility of Heaven can arise from the form alone, which by its own power is of such a nature that it is impossible for it to be expelled from the subject. For we commonly see predicates belonging to composites by reason of the form alone. Thus man, by reason of the soul alone, is called living and rational, and is incapable of being identified with a horse. Confirmation: although the matter of Heaven is of itself capable of sublunary forms, it can be rendered absolutely incapable of them by the form. Thus humanity, of itself capable of sin, is rendered absolutely impeccable by the hypostatic union and the beatific vision; thus the body of the Blessed, of itself passible, is rendered absolutely impassible by the gift of impassibility; thus also prime matter, of itself penetrable together with another matter, is rendered impenetrable by quantity. First, the objection is retorted. An intrinsic capacity of matter must not be multiplied or asserted without any necessity, foundation, or indication. But there is no necessity or foundation for a capacity for sublunary forms in the matter of Heaven, since neither is there an indication *a posteriori* nor a reason *a priori*, given that matter of itself limited to the celestial form is not incompatible, as is presently supposed.

14. Next, I deny the minor, because the incorruptibility of Heaven necessarily demands such matter. To the proof: incorruptibility cannot arise from the form alone. We do not take as a general rule that predicates cannot belong to a composite by reason of the form, but this predicate, unless founded in the character of the subject, establishes that the form is supernatural or of infinite strength in resisting, as is clear from our proof. To the confirmation, I deny the assertion, because common matter cannot be rendered thus absolutely incapable except by a form of infinite strength, whose exigency for possessing the matter outweighs the right and endeavor of infinite agents, just as a stone cannot be rendered immovable from place by all natural agents except by reason of infinite gravity or a supernatural power. The examples adduced are irrelevant. For the hypostatic union, the beatific vision, and the gift of impassibility are supernatural forms and belong to an order far superior to the forces of nature productive of the effects which they impede. Matter, however, is neither of itself indifferent to having or not having quantity, as according to the adversaries it is indifferent

to the celestial form, but rather is altogether naturally connected with quantity, and therefore by reason of itself is radically impenetrable. Nor does it otherwise require a quantity of infinite strength to resist penetration. For quantity has no contrary, nor does any body endeavor to be penetrated together with another quantified matter. Hence, when one body resists another lest the latter occupy its place, that resistance, insofar as it impedes penetration, is improper and merely negative; it is positive and proper only insofar as by reason of gravity it impedes the expulsion of the body from its place.

15. Objection 2º: matter without any specific diversity of itself can receive now a form easily corruptible, now one difficult to lose, as is evident in the matter of an apple and of a diamond. Therefore it can also receive a form simply incapable of being lost. Proof of the consequence 1º: incorruptibility simply so called must be derived from the same principle from which incorruptibility in a qualified respect, or great difficulty of corruption, is derived. But the latter can be derived from the form alone without specific diversity of matter. Therefore so can the former. 2º: if matter, of itself capable of the impressions of any agent whatsoever, can by the benefit of the diamond-form alone protect itself from all natural agents except one or another, why can it not also protect itself from absolutely all by the aid of a stronger form, such as the celestial? The objection absurdly proves that a stone can be rendered simply immovable by finite gravity, just as it is rendered difficult to move; and likewise that fire can by non-infinite activity be rendered simply irresistible. Furthermore, I deny the consequence if the form is posited as simply incapable of being lost in relation to the forces of all natural agents, even possible ones.

16. To the proof, I deny the major, because difficulty of corruption can without inconvenience be reduced to the tenacity of the form alone, whose exigency, although finite, can be stronger than the likewise finite right of many agents. But if incorruptibility simply so called were reduced to the exigency of the form alone, this would become infinite, since it would be superior to the right of infinite agents, at least syncategorematically infinite. An example is found in the immobility of a stone. To 2º: it is false that common matter can by the aid of the form alone protect itself from all natural agents except one or another, if we speak of possible agents. For no form is possible which in common matter could not be overcome by innumerable agents stronger without limit. Matter can indeed, by the protection of the form alone, defend itself from many, and even from all those actually existing, whose right and endeavor, being finite, can without difficulty be frustrated by likewise finite resistance. Hence, if Heaven is

posited as incorruptible only in relation to the corruptive forces actually existing, I shall readily grant that specifically diverse matter is not required, although perhaps it is more connatural or probable from the first proof at n. 5. But it does not follow from this that matter can by the power of the form alone resist all possible agents, just as from the fact that an activity irresistible by many forms can be given it is wrongly inferred that an activity of one agent is possible which nothing resists.

17. Objection 3º: provided that Heaven has quantity specifically diverse from sublunary quantity, namely a quantity incapable of receiving corruptive qualities, which are received in matter only through quantity, it will by that very fact become incorruptible even though it does not have specifically diverse matter. Therefore incorruptibility of Heaven can stand without specific diversity of matter. But it is easily answered that quantity specifically diverse from sublunary quantity cannot belong naturally and intrinsically to celestial matter unless the matter itself is also specifically diverse. For since quantity is a property of matter and connaturally results or emanates from it, if quantity is diverse it necessarily supposes diversity in the essence of matter. Essences of the same species cannot root specifically different properties, as is well known. If therefore a quantity incapable of a corruptive quality is possible, and God were to bestow it upon Heaven constituted of common matter, He would act miraculously; Heaven would then indeed become incorruptible, but only supernaturally and extrinsically.

18. Objection 4º: do celestial forms and qualities, of themselves and prescinding from matter, either have a contrary or not? If they do not, then, although they are received in common matter, they cannot be expelled or attacked by any agent. If they do, then they do not demand special matter suitable to themselves alone and incapable of corruptive qualities, for every form which of itself is capable of conflict and contrariety with others must be received in matter common to itself and to the others. I answer: nothing can be determined concerning the contrariety of forms while prescinding from the subject, or from order to a subject of a determinate character, since contrariety exists only concerning possession of a common subject. Hence a celestial form or quality, under that prescission, neither has nor does not have a contrary, taking the term "not" in an exclusive sense; rather, it prescinds from both extremes. But if it is considered in order to a subject, such a form or quality will not have a contrary if it regards a peculiar subject which of itself is incapable of qualities incompatible with it. It will nevertheless have a contrary if it regards a common subject which of itself is apt for other qualities incompatible with it, and hence it will also be simply corruptible. One may say: the incorruptibility of Heaven is now supposed. I

grant it; but at the same time it is being asked whether common matter is consistent with this supposition, and our position is that it is not. One may again say: there is no contrariety except among the four primary qualities, or those resulting from them, such as celestial qualities are not. First, it can be said that the qualities of Heaven would be very akin to elemental ones if the matter were common to both. Next, contrariety is frequently found among other qualities of a higher order, as between habits of virtues and vices, or between knowledge and error.

19. Objection 5º: if Heaven consisted of matter diverse in species, it could not influence sublunary things. For influence and subordination require a conformity between the influencing body and the body receiving the influence. But there would be no conformity either in matter or in form if a celestial body were constituted from matter peculiar to itself. I answer: since our position proceeds from the hypothesis of the incorruptibility of Heaven, which is absolutely uncertain or false, it is inept to argue against it from influence existing absolutely, since it can easily be granted that Heaven in fact consists of common matter because it is not incorruptible. Furthermore, there is no reason why generic conformity in the character of a composite body should not suffice for subordination of influence, especially since celestial bodies do not influence sublunary things as univocal causes, nor do they intend to introduce their own proper forms into sublunary matter. Certainly it is not matter but form that is the principle of influencing. Hence it does not appear what specific conformity in matter contributes to influence. Finally, observe that if celestial matter is of itself incapable of a sublunary form, it could not make an essentially one composite with it even if divinely united to it, because an essentially one composite results only from act and potency essentially coordinated to mutual union.

Other Questions Concerning the Heaven and Celestial Bodies Are Touched Upon.

20. Question 4: whether celestial bodies are animated? I answer: the common and certain position is that the heavens and stars are animated by no kind of life, because there is no organization in them and no indication of life. Nor should locomotor life be excepted. First, because this is not found without sensitive life, since it is as it were its property or appendage. Second, because the motion of celestial bodies, since it is perpetual and most constant in an enormous and almost immense mass, must proceed from a most powerful mover incapable of fatigue. Such certainly is not a purely

locomotor soul, which, if any such exists, is most imperfect. This motion, therefore, is not from an intrinsic principle, since it is neither vital nor tends toward a center, but from an extrinsic principle, namely Intelligences, not informing but assisting, that is, Angels appointed by God to govern the World. Thus theologians and philosophers everywhere assert or suppose with the Holy Fathers.

21. Question 5: whether the Heavens are fluid or solid? I answer: there are three famous opinions concerning this matter, whose authors may be seen in Tosca, *Compendium philosophicum* tr. 5, lib. 2, cap. 1. The first holds that all the Heavens are solid; the second, that all are fluid, except the Empyrean; the third, that the Firmament, or starry Heaven, is solid, but that the planetary Heaven, or all the space containing the Planets, is fluid. This third opinion at the present time pleases most philosophers and, at least as regards the second part, all modern astronomers, indeed many Fathers of the Church and ancient Doctors cited by Fr. Celada, tom. *De benedictionibus Patriarcharum* in cap. 1 Gen. Its proof as regards the second part is taken first from the motion of supralunar comets, which, since it has often been observed to be manifold and wandering, necessarily requires a free and fluid space; second, from the proper motion of the Planets, for example Mercury and Venus, which go around the Sun and wander now above and now below it, admitting many other combinations, as also do the satellites of Jupiter and Saturn around those Planets. This variety of motions cannot be preserved in the first opinion without many incredible and extremely intricate concentric and eccentric channels, themselves filled with fluid matter. As regards the first part, it is commonly proved first because no indication of fluidity appears in the Firmament, since there is no variation of motion or position among the fixed stars; and second because certain passages of Scripture and the Fathers which suggest the solidity of the Heavens are thus best explained. Although they speak of the Heavens in the plural, they can be understood of the Firmament and Empyrean.

22. From the decision of this Question the number of the Heavens must be determined. Among the authors of the first opinion, some establish, besides the Empyrean, eight Heavens, others nine, others ten, others eleven. Of these they call the Heaven immediately below the Empyrean the "First Mobile," which moves and carries with itself the lower Heavens from east to west within a day. They assign the eighth Heaven to the fixed stars, and the seven lower ones to the seven Planets, one to each, so that besides the "carried" motion, which is daily from the First Mobile, the stars may have a "proper" motion from west to east by reason of their own Heaven. The ninth and tenth, if they are posited between the First Mobile and the Firmament,

are established by their authors because of the motion of the stars which they call "trepidation" or "libration." Among the authors of the second opinion, some recognize only two Heavens, namely the Empyrean and the Sidereal, by which name they understand all the space extending from the elemental region to the Empyrean, in which the stars move like fish in the sea or birds in the air. Others establish three Heavens because they number among the Heavens the region of the Air, which not rarely in Sacred Scripture receives the name "Heaven," as when it says "rain from Heaven," "birds of Heaven," etc. Finally, the authors of the third opinion, which seems preferable to the others, number three Heavens. The first, or nearest the earth, is the Planetary, namely the whole fluid region in which the wandering stars or Planets move. Air can be called a part or appendage of this Heaven because of the kinship of fluidity. The second is the Firmament furnished with fixed stars. The third is the Empyrean, which the Apostle signifies in 2 Cor. 12 when he says that he was caught up "even to the third Heaven."

23. Hence one will infer 1º that there is no First Mobile which moves the other celestial bodies, for the Empyrean is immovable, while the Firmament does indeed move but does not move the Planets. Certainly, since celestial bodies are moved by Intelligences, the whole variety of motions observed in the stars can be introduced by their power without recourse to a First Mobile. Nor in reality do celestial bodies move with contrary motions. For although the Sun, for example, seems to move from west to east and to decline toward the tropics, in reality it has only one simple daily motion, which, because it is spiral and daily somewhat retarded with respect to the stars of the Firmament, suffices for the Sun to decline toward the poles and to seem to return toward the east by an annual motion. But astronomers treat these matters more fully. One will infer 2º that the whole Firmament, being solid, is moved by one Angel together with the fixed stars, while individual Angels assist the individual Planets, since one Angel cannot move so many bodies distant and disconnected from one another. One will infer 3º that if waters properly so called exist above the star-bearing Firmament, as many Fathers and interpreters gather from various passages of Sacred Scripture, those waters do not increase the number of the Heavens, because they have not a celestial but an elemental form. The Excellent Doctor treats fully of the supercelestial waters, lib. 2, *De opere sex dierum* c. 4, where he rejects the opinion of those who say that by the name "water" the crystalline Heaven is to be understood.

24. Question 6: what is the nature of the stars? I answer: the stars are divided into fixed stars and Planets. The stars of the Firmament are called "fixed and non-wandering" because they do not vary their place or the order

of their distances from one another and seem scarcely to have any motion except the daily one. The Planets, however, are called "wanderers" and "wandering stars" because of the variation of their places and motions, although in this very variation each observes a determinate law. As regards the nature of the Planets, it is evident that the Sun is a spherical body shining with native light and productive of light, heat, and dryness. But it is doubtful whether it is formally fire. Those who make celestial bodies incorruptible deny it, for they wish the Sun to be fire eminently, insofar as it has a nobler nature which as an equivocal cause contains and produces heat and fire. Most others affirm it, especially modern philosophers and astronomers, together with many Fathers of the Church cited by Fathers Kircher, Scheiner, and Riccioli. They prove it first because the Sun, when observed through a properly prepared telescope, appears as a fiery sea agitated by waves of surging flame, sometimes also emitting smoke and black soot which display themselves as various spots upon the solar body. Second, because all the properties of fire belong to the Sun, namely light, heat, dryness, and also the power of producing other fire. This is evident from experience of sensible effects no less than in the flame found among us; and flame among us affords no indication of a nature formally fiery which the Sun does not equally afford. Yet the Sun is not thought to be pure and exceedingly rare flame, but is believed to consist of denser matter, partly fluid and partly solid, although the whole is luminous and inflamed. On this Question, if desired, see Fathers Jo. Bapt. de Benedictis, tom. 3, *Philosophia* l. 1, q. 4, c. 1; Jo. Ulloa, *Philosophia naturalis* disp. 4, c. 2; and Tosca, *Compendium philosophicum* tr. 5, lib. 3, propos. 2.

25. Concerning the other six Planets, it is evident that they likewise are spherical bodies, but opaque, receiving their light from the Sun and reflecting it to us. This is demonstrated of the Moon by its eclipses and its various phases. And since phases not unlike the lunar are likewise observed in Mercury, Venus, and Mars, for these stars increase and decrease in light and appear now with half a disk, now with a full one, their opacity and their borrowing of light from the Sun are likewise certain. The same is gathered concerning Jupiter and Saturn from analogy with the other Planets and also from the fact that they eclipse their satellites by their own shadow. Satellites, attendants, or companions are certain smaller stars which revolve around these Planets and participate in the nature of Planets. Jupiter has four satellites, Saturn two, which are also called Saturn's attendants. The moderns commonly think that the globes of the Planets, especially the lunar globe, are composed of solid and fluid parts like the terrestrial globe, and consist of great mountains, cliffs, and cavities after the manner of the Earth.

This is very consonant with telescopic observations. Most, however, do not dare openly to say that the solid and fluid parts of the Planets are properly earth and water, but only that they are akin or not dissimilar to earth and water.

26. As for the fixed stars, the common opinion holds that their bodies shine by their own light. For since they are believed to be so distant from the Sun that the Sun, if viewed from their place, would not appear larger than a star of middling size, it is impossible that such immense bodies should receive so great and vivid a light from the Sun itself. Hence many moderns make the fixed stars fiery in nature, as so many Suns. This, however, cannot be proved as plausibly as in the case of the Sun, since no other certain likeness or property of fire is known in the stars besides light, and specific identity may not be inferred from a single property. Treatment of the magnitude and distance from earth of the stars, both wandering and non-wandering, and of the manifold motion of the Planets, properly belongs to astronomers.

27. Moreover, scarcely anyone denies or calls into doubt that all the stars generally are by nature apt to influence sublunary things, not only through light and heat but also through other more occult influences which vary according to the diverse character or temperament of the stars and produce various natural effects, though not effects depending upon the human will. Yet there is great controversy concerning these influences between the Corpuscularists and the Peripatetics, the latter asserting that they are mere qualities, the former that they are nothing but effluvia of corpuscles. The decision depends upon the general principles of each philosophy. For now I shall merely note that such effluvia, defended among others by Tosca, are not easily consistent with another doctrine of the same author, namely that the Planets and all the stars are total globes like the earth, that is, inclined toward no center outside themselves, but each having within itself its own center of gravity or inclination, toward which all parts of the same globe tend by a peculiar striving. This being posited, it appears as difficult for effluvia of lunar or solar corpuscles to reach the earth as for terrestrial effluvia to reach the Sun or Moon; or, if by some enormous impulse they do reach the earth, they will again endeavor by a peculiar striving to return to the center of the Sun or Moon. It should also be observed in passing that what some say is false, namely that if the motion of Heaven ceased, all action of sublunary agents would suddenly cease and all living things would suddenly die. See Fr. Suárez, disp. 22, *Metaphysica* s. 5, where he wisely explains in what sense celestial causes are called universal and how great is the subordination and dependence of inferior things.

28. This would have been the place to dispute concerning the nature of Light, which is the better known and more illustrious property and effect of celestial bodies. All the Peripatetics firmly assert and defend that light is a quality. The Corpuscularists, however, sharply contend that it is a substance or body, or at least a determinate motion of corpuscles. Some of them do not distinguish it from the substance of exceedingly rare flame or from an effluvium of very subtle fiery corpuscles; others make it consist in a tremulous motion of globules of ethereal substance caused by the impulse of a luminous body, namely when those globules, which they wish to be diffused through the pores of all bodies, are shaken by that tremulous motion in a diaphanous body, that is, in a body having pores excavated in a straight line. For they think that the transparency required for the diffusion of light consists in this straightness of the pores. This matter demands a long examination, to be carried out in the promised Work. Meanwhile I shall speak of Light, as hitherto, according to the opinion of the Peripatetics, which I judge to be most true.

CHAPTER III.
On the Elements.

1. Earth, Water, Air, and Fire are called the Elements of the sublunary World, as no one is ignorant; the other bodies are called Mixed. But Question 1 asks by what right or by what property those four are called elements, since by the name "Element" we understand an intrinsic principle of something which is first in composition and last in resolution, according to the definition given by Aristotle, 5, *Metaphysica* cap. 3, according to which an Element is "that from which something is first made while it remains within it, and into which it is finally resolved." Many wish those four bodies properly to be the elements of all mixed bodies in the full rigor of this acceptation, because they think them to be bodies so simple that they are not composed of matter and substantial form, and that every mixed body is composed from their entire substance, as from the first subject or prime matter, and is ultimately resolved into the same. Thus the modern Corpuscularists and also others among those who recognize substantial form in mixed bodies in the Peripatetic sense. Those partly agree who with Avicenna and Averroes judge that those four elements, although substantially composite, remain formally in mixed bodies, that is, are constitutively included in them not only according to matter but also according to their proper forms of fire, air, etc., which the Averroists posit there as weakened or remitted.

2. The most received opinion among the Peripatetics, however, with St. Thomas and Scotus, whom Fr. Suárez cites and follows, d. 15, *Metaphysica* s. 10, n. 52, supposes those four bodies to be composed of matter and substantial form, which Fr. Suárez proves generally of every sensible body in the same d. 15, sect. 1, and denies that their substantial forms remain actually and formally in mixed bodies, saying that they remain only in potency, or virtually. The Excellent Doctor proves this opinion by many arguments in the cited sect. 10 from n. 41 and shows at n. 54 that it is approved by Aristotle. Therefore these authors do not wish the definition of Element just given to belong properly to those four bodies, since in physical things it is verified only of matter and form, and especially of matter. Hence Aristotle, cited by the Excellent Doctor at n. 55, more than once warns that they are not properly elements, but "so-called" elements; today also they are everywhere called "common elements."

3. For these Aristotle, 3, *De caelo* t. 31, gave this other description of an Element: "that into which other bodies are resolved, in which it inheres potentially or actually, while it itself is not resolved into other bodies specifically diverse." Here it is left ambiguous whether it inheres actually or only potentially. But the Peripatetics with Aristotle himself in other places judge that the common elements inhere in mixed bodies only potentially, or virtually: first, insofar as in every mixed body there is a temperament of the primary qualities, which are the accidental powers and potencies of the elements; and especially, insofar as the substantial form of every mixed body, even of man, participates in the power of the four elements by demanding their proper qualities, although tempered. In this sense the form of the mixed body is called a "form of mixture," that is, a form virtually mingling or in some manner containing within itself the forms of fire, air, water, and earth. They also say that every mixed body is resolved into these by a less proper resolution, insofar as by chemical operation certain bodies very akin to these elements are extracted from it, namely an inflammable spirit, airy smoke, watery humor, and earthy ash. This is not because they previously constituted the mixed body, but because they are then generated anew with the aid of the primary qualities which inhered in the mixed body as it perished; or also because they were insensibly contained in the pores of the mixed body and now, by the aid of heat which congregates homogeneous things and separates heterogeneous ones, become sensible. Indeed, there are Peripatetics who wish that exceedingly small particles of fire and the other elements are often contained in the pores of a mixed body; hence they explain various experiments, for example why fire is elicited by striking flint. What we said in *Physica* tr. 1, d. 5, c. 3 also pertains here.

4. For these reasons, therefore, the name Element is attributed to the four common bodies; also because they are as it were the first foundations of the sublunary World and certain general seedbeds of the other bodies, just as first general principles are called the elements of sciences for a similar reason. Add that they are also simple bodies as regards the exigency of the primary qualities, insofar as each demands one of them in a simple degree, that is, in the highest and unmixed degree. Hence, according to the Peripatetics, a common Element can more briefly and clearly be defined as "a body demanding one of the primary qualities in a simple degree." A Mixed Body, however, is "a body demanding a temperament of the four primary qualities."

5. Question 2: whether the elements are generable and corruptible? The Corpuscularists deny it, as do all those who do not recognize substantial form in the elements. Hence, in this opinion, when fire, for example, is extinguished, it is not corrupted substantially, but only integrally divided into insensible corpuscles which hide themselves in the pores of surrounding bodies. When they are again disengaged by some suitable motion and congregated into a sensible mass, the fire is then kindled. But the Peripatetics constantly affirm it; for they do not believe it possible that within one pound of gunpowder, for example, there should be contained so great a quantity of incorrupt fire as a small spark causes to issue from it, nor that fiery particles should be hidden unharmed beneath water when fire is extinguished by water poured upon it from every side. I omit for now several other arguments which they employ and which must be weighed elsewhere.

6. Question 3: whether the elements are mutually transmutable, so that any one can be generated from any other? The Peripatetics commonly affirm this also with Aristotle, because any one can be altered by any other, or affected by the proper quality of the altering body; but alteration is the way to the generation of one and corruption of the other. Nevertheless, it is difficult to believe that water is generated from fire, unless perhaps when fire is first resolved into exhalations.

7. Question 4, among the Scholastics: whether the forms of the elements were educed at the beginning of the World or properly created? The Question supposes that all the elements with their specific forms were produced by God at the beginning of time, which the Excellent Doctor proves fully, lib. 1, *De opere sex dierum* c. 7 and 8. This being supposed, the first opinion holds that the elemental forms were properly created at the beginning of the World, or concreated by the same action with matter. Thus commonly the Thomists, some of whom generally deny that the eduction of a substantial form is possible in the first instant of the creation of matter.

Most, however, among whom are Bayona and Froylán, acknowledge that such eduction is possible although matter does not precede in time, yet deny it in fact to the elemental forms. The second opinion favors primordial eduction. Thus the Scotists and our authors commonly with the Excellent Doctor, disp. 15, *Metaphysica* s. 3. With them I assert:

The Forms of the Elements Were Produced by Eduction at the Beginning of the World.

8. Proof: first, the elemental forms could have been educed in the first instant of the creation of matter; second, in view of their natural exigency they ought to have been educed. Therefore in fact they were produced by eduction. For, as all admit with St. Augustine, lib. 1, *De Genesi ad litteram* cap. 1, in the first production of things God acted as the Author of nature in a manner consonant with the natures of things. The major is conceded by most adversaries and was sufficiently proved by us in *Physica* tr. 1, d. 1, c. 5, 7, and 8; nevertheless it is now briefly proved from what was said there. It does not belong to the concept of eduction that matter or the subject precede in time; but this alone could prevent the possibility of the eduction of elemental forms in the first instant of matter. Therefore. Proof of the major: provided the production of a form essentially depends upon a subject presupposed by priority of nature, it has the concept of eduction, for by this very fact it differs essentially from creation. But priority of nature on the part of the subject can stand without priority of time. This is evident because priority of nature on the part of an efficient cause can stand without priority of time, as no one denies. The same reason holds on the part of the subject or material cause. For priority of nature is founded upon the office of a cause, and this office requires only an actual and applied or disposed potency of causing. Just as this potency can belong to the efficient cause in the first instant, so also can it belong to the material cause, since the latter immediately has its actual potency and can be disposed by God without delay. Add the example of the form of a worm which, when the Eucharistic species are corrupted, is educed from the potency of matter then first created. Add also the parity of an accidental form: for the grace, cognition, and love of the Angels existed by eduction in the first instant of the creation of their subject. A diaphanous body, if produced in the presence of the Sun, would immediately be illuminated, certainly by an educed light; and similarly in other cases.

9. The minor of the first syllogism is now proved thus. An elemental form is never connaturally produced except by eduction. Therefore, in view

of its natural exigency, it ought to have been educed at the beginning of the World. Proof of the antecedent 1º: because a material form, such as the elemental, by its own nature always depends upon a subject and can never exist outside a subject. From this dependence the perpetual connaturality of eduction is inferred, both in accidental forms and in the elemental form itself, for example the fiery form, whenever it is newly produced from the matter of a mixed body; just as from the opposite independence it is inferred that a rational soul is never connaturally produced except by creation. 2º: because an elemental form by its nature never ceases except by corruption; but corruption corresponds to generation or eduction, just as annihilation corresponds to creation. Certainly that very individual form of earth which was first produced with matter is afterward corrupted by the advent of the form of a mixed body. Yet nothing is more established in Philosophy than that only what begins by generation, or at least ought by its own nature to begin by generation, is subject to corruption. Add that, when that form perishes, it will properly be annihilated if it was not educed; for it will cease into the nothingness both of itself and of a presupposed subject, since it depends upon nothing in the genus of material cause. See what was said in *Physica* tr. 1, d. 4, c. 4.

10. Confirmation 1º: prime matter at the beginning of the World ought to have been produced by an action distinct from the production of the elemental form. Therefore that form ought to have been educed. The consequence is legitimate among the adversaries, because such a form must depend upon matter in becoming just as it depends upon it in being and in conservation. Hence, if it does not depend upon matter in becoming insofar as it is made by the same action, it is necessary that it depend upon matter insofar as it is educed from it. Proof of the antecedent: prime matter can in the course of time naturally be separated from an elemental form and exist without it, as occurs whenever a mixed body is generated from the elements. But that which can naturally be separated and conserved without another must be produced by a distinct action, for by this reason the rational soul demands a production distinct from the creation of matter. Therefore, etc. The same point is pressed: the action by which that matter of earth was first produced, which afterward passed under the form of a mixed body, now perseveres. But the action by which the form of earth was first produced in such matter does not persevere, since an action cannot persevere without its terminus. Therefore the creation of matter was distinct from the primordial production of the elemental form.

11. The Thomists say that the creation of matter indeed perseveres, but incompletely and under termination to matter alone, not completely and

under the adequate termination which it had to matter and form together. But this is easily rejected. For does the termination of the action to form differ really from its termination to matter, or not? If the first is said, then those two terminations are really two actions. If the second, it is incompatible that one termination remain without the other, otherwise things really identified could be separated. Add that an action is the actual positing of its adequate terminus, or an ultimate determination that the whole terminus be actually produced. Therefore the permanence of the action while even an inadequate terminus is destroyed is incompatible. The consequence is evident because such a terminus could then be destroyed and simultaneously actually produced and posited in reality. For every positing and production by way of ultimate determination, as long as it remains, necessarily denominates its terminus as posited and produced, just as every cognition renders its object known, every union renders both extremes united, and every location renders the body located.

12. Nor should it be said that the elemental form is a secondary terminus of that action. For, first, action is an ultimate determination and execution which actually produces even secondary termini. Second, the elemental form, as nobler than matter and its end, cannot but be a primary terminus of an action common to both. At least the elemental composite itself, whose existence that action indivisibly intends, must be the primary terminus. Therefore, when this terminus is lacking, the action can in no way remain. These arguments hold even if creation consists in the Divine decree, for it would be consistent with this that one action of God be said to be distinct from another, independent, and separable, for example the creation of one Angel from the creation of another, and the creation of a rational soul from the creation of matter.

13. Confirmation 2º: according to St. Thomas, 1 p. q. 66, art. 1 and 4, where he also cites St. Augustine, formless matter at the beginning of the World preceded formation not in time "but only in origin, or nature." But matter does not precede form by priority of nature except when it is a material cause of the form, since priority of nature is founded upon the office of cause. Therefore matter at the beginning of the World was a material cause of the elemental form, which consequently was not produced by creation, since creation has no material cause. Add that if the matter of earth preceded its form by priority of nature, which priority must likewise be conceded to matter with respect to accidental dispositions, then in the prior sign it was created indifferent to specifically diverse elemental forms. But this indifference certainly has no place if matter is supposed to be created by an action which simultaneously is the concreation of the form of earth.

Indeed, neither does priority of nature or an order of signs have place in any true sense, because termini produced together by the same action cannot but have simultaneity of nature.

Contrary Arguments Are Resolved.

14. It is objected 1º from Gen. cap. 1: "In the beginning God created Heaven and Earth." From this it follows that the earth, and consequently all the elements, were produced by creation. But this would not be true unless the elemental form were created, for a composite whose form is educed is not said to be created but generated. I answer: the word "created" is there taken as equivalent to "produced as regards all its parts," or "from no subject presupposed in duration or supplied from elsewhere." For this is what Faith proclaims and the Fathers inculcate, that God at the beginning of time made the World "from nothing," that is, not from any eternal matter or matter which preceded in duration or existed from any source other than God, but from matter then first created by God Himself. Thus the error of the pagan philosophers concerning eternal or even uncreated matter is excluded, according to their maxim wrongly understood, "From nothing, nothing is made." But this does not exclude that the elemental form was produced by God by eduction in that same first instant, and that matter had a true priority of nature, which St. Augustine, cited by us in *Physica* tr. 1, d. 2, c. 3, n. 20 and 29, acknowledged, and with him St. Thomas, 1 p. q. 66, ar. 4, and often elsewhere. Add that the action of God alone, or even of God together with a creature, when considered as proceeding from God, is commonly called creation although it depends upon a presupposed subject and is therefore properly generation or eduction. The reason is that such an action both supposes creative power and, because of the identity of the agent, is taken as conjoined with the strict creation of the subject, which, since it is an action nobler in its genus, prevails in denomination. In this sense God is called the "Creator of all things," and all things outside God are called "creatures" and "created" beings. In this sense also it is said in the same cap. 1 of Gen.: "God created the great sea creatures and every living and moving soul."

15. One may say: the words of Sacred Scripture must be taken in their proper sense where no inconvenience follows. I grant it. But first, it is inconvenient that in the production of the World God acted as the Author of nature and yet against the natural exigency of things. Otherwise, I ask by what other reason the Thomists are moved not to understand the words "God created the great sea creatures, etc." of the strict creation of fishes.

Second, it is not the same thing for an acceptation to be less proper and for it to be improper, metaphorical, or abusive. That which is made by God from nothing is properly said to be created. But "from nothing" admits two senses, both proper: one by which precedence of duration in the subject is excluded; another by which priority of nature in the genus of material cause is denied. The former sense is indeed proper, both from the force of the words and because it is opposed to generation recognized by Aristotle and defined through the change of matter from privation to form. The latter, however, is more immediate, especially among the Scholastics, because it distinguishes creation from every possible eduction by its proper characteristic of independence from a sustaining material cause. In this latter sense, therefore, we say that the elemental form was not created or made from nothing, but rather from something. This is the opinion of St. Augustine, lib. 13, *Confessiones* c. 33, who says that matter was made from absolute nothing, but the form of the World from formless matter.

16. One may again say: then the same must be judged concerning the form of Heaven. I grant the consequence if Heaven is corruptible and made from the matter of water or another of the same species. But if it is supposed incorruptible and consisting of matter of a diverse species, namely matter of itself limited to the celestial form and inseparable from it, the argument which we drew for the elemental form from the separability of matter and its creation does not apply to the form of Heaven. Therefore the Excellent Doctor seems rather to wish that the form of Heaven be called not properly educed but concreated. The Excellent Doctor himself, however, disp. 13, *Metaphysica* s. 13, n. 5 and 6, grants that the production of the matter and form of Heaven is not one simple action but one composed of parts, although naturally inseparable, and that insofar as it terminates at the form it depends upon matter as subject and material cause. He only refuses to call this part a proper eduction because it cannot exist through itself and separately from the creation of celestial matter. But whether this circumstance is required for the proper character of eduction when the form is produced dependently upon a material cause is a question of name. It seems that it should be said not to be required, because dependence upon a material cause, since it is foreign to strict creation, is proper to true eduction. This nevertheless does not prevent the form, whether celestial or elemental, from being called in some true sense "concreated," and its production a "concreation," namely because it was an action accompanying the creation of matter, or concomitantly posited in the first instant. By this title the first grace of the Angels is also called "concreated," although

according to the common opinion, even of the Thomists, it was produced by eduction.

17. Objection 2º: God alone produced the matter and form of an element. He could also produce both by a single action. Therefore He should be believed to have so produced them, for actions are multiplied in vain when one suffices. But the production of both parts, if one, could not but be proper creation. Confirmation 1º: to operate by eduction is proper to an agent which, in order to act, must await matter supplied to it from elsewhere. But this does not belong to God, who can produce matter together with form and did so at the beginning of the World. Therefore then, and generally whenever God alone acts, eduction is fittingly excluded. Confirmation 2º: although a material form, when produced by a created agent after the World was founded, naturally demands to be educed from matter, this exigency should not therefore be extended to the first formation of things. Thus, although it is now natural that childhood precede manhood in time and that trees first be born and grow before they bear fruit, nevertheless in the first formation of things God suddenly made man a grown man and trees immediately bearing fruit.

18. I answer the objection: although by absolute power God could produce the matter and form of an element by one action, He could not do so as Author of nature, or as willing to act according to the natural exigency of things; otherwise He could likewise produce by one action the matter and form of trees, fishes, and other living things at the beginning of the World. One may say: we know that these living things were produced from matter previously created under an elemental form. But against this: why could God not cease from the first creation of matter and substitute another which would simultaneously be the conservation of matter and creation of the form of the fish, especially since that first creation, if it terminated simultaneously at the elemental form, could not remain without the latter, as we showed above? It must therefore be said that actions are not multiplied in vain when one action, although sufficient for acting without contradiction, nevertheless does not suffice to satisfy the natures of things and the separability of the termini. To Confirmation 1º, I distinguish the major: to operate by eduction with inability to act otherwise, I grant; without inability to act otherwise, namely by creation if one pleases, I deny the major. The minor being similarly distinguished, I deny the consequence. Therefore both the First Cause and a second cause can operate by eduction, but with this difference: the First can act by creation if it wills; a second cause, however, since it cannot act except from a subject supplied to it from elsewhere, can operate only by eduction.

19. To Confirmation 2º: the objection is manifestly parallel in the forms of trees and fishes, whose creation at the first origin of things could be proved by the same argument. Furthermore, the disparity in the examples objected is clear. For a material form, because it is intrinsically material and by its proper character immersed in matter, has within itself a reason for demanding dependence upon matter in becoming just as it depends upon matter in being. Hence it can never be produced otherwise by any agent without violating its intrinsic exigency. But neither the nature of a man nor of a tree, considered in itself, demands that it await a delay of time before attaining a mature or fruit-bearing state, nor does it suffer violence in an early or sudden attainment of that state. For since it naturally desires this state from its first origin, if by the benefit of some agent it immediately obtains it, it will rather rejoice that its appetite has been satisfied without delay or loss of time. Delay or precedence of time, therefore, is natural to a man and tree only extrinsically, namely from the weakness of natural agents, which because of the imperfection of their power and the resistance of contraries can lead the body of a man or tree to the mature or fruit-bearing state only gradually. But this kind of naturalness had no place in the first formation of things, which was accomplished by the power of God alone.

20. Objection 3º: the eduction of a form in the first instant of the existence of matter is incompatible. Therefore the elemental form could not have been educed at the beginning of things. Proof of the antecedent 1º: eduction entails the transmutation of matter from privation to form. But this change cannot occur unless matter previously had the privation, and therefore preceded in duration. 2º: by an eductive or generative action matter, which was in potency, becomes in act, or passes to act. But it is incompatible that matter in the same instant be both in potency and in act. 3º: generation is necessarily preceded by alteration, which, since it is a successive motion, requires a stretch of time. Confirmation: the element at the beginning of the World was produced by God alone. But it is incompatible that an action of God be eduction: first because God cannot in acting depend upon a presupposed subject; second because God acts by an action really indistinct from Himself, which certainly cannot have a material cause.

21. To the objection, which is held by few and displeases most Thomists, I deny the antecedent, notwithstanding the proofs. To 1º: eduction entails change, not considered in itself and insofar as it is essentially distinguished from creation, but only insofar as it arises from second causes without the intervention of a miracle. Re-read what was said in *Physica* tr. 1, l. 1, c. 5 and 8, where we also answered the authority of Aristotle. To 2º: prior to

generation matter must be in potency, not privatively but precisively, insofar as in the sign of the cause it must prescind from the informing act and its privation. In this sense matter can indeed at the same instant be both in potency and in act, as is evident from the doctrine of priority of nature. Thus the will, while it freely loves, at the same instant both is in active and passive potency to love and is in the act of love. To 3º: alteration, that is, the production of a quality preparing for the form, is a successive motion only because of the resistance of a contrary quality. Hence, when it occurs in matter preoccupied by no contrary qualities, as happened at the beginning of the World, it can and ought to be an instantaneous motion.

22. To the confirmation: it seems beyond doubt that God very frequently operates by eduction, at least whenever He simultaneously concurs with second causes. For then the action of God and the creature is really the same, and certainly is not simultaneously eduction and creation unless it is absurdly posited as essentially dependent upon and independent of a subject at the same time. And even if God concurred by a distinct action, this would not be creation, for otherwise every effect of a second cause would simultaneously be made from nothing and from something, and creation would be intermixed in all the works of nature and art, contrary to the express doctrine of St. Thomas, 1 p. q. 45, ar. 8. Often also, when God alone acts, He acts by eduction, as when He produces grace and infused habits. And at least it is certain that living things, after they have been generated and separated from the mother's womb, are conserved by God alone. Who would dare say that the human union or the equine soul is in fact conserved by creation? Nor does it follow that God in acting depends upon a subject, for He can act without a subject whenever He wills. Hence the entire dependence found in eduction belongs to the external action, not to the Divine power. That God acts only by an action indistinct from Himself is false, as we saw in Physics. Those who judge it true also acknowledge that from an action identified with God there results in the effect a certain passive production dependent upon a material cause, by reason of which the internal action of God is truly denominated and is an eduction. We said more on these matters in *Physica* tr. 2, d. 8, c. 2.

Remaining Questions Concerning the Elements.

23. Question 5: whether there are other elements besides the four common ones? I answer: the Corpuscularists, who wish the elements formally to enter into the constitution of a mixed body, and indeed to be the entire substance of mixed bodies, establish many other elements, some

unnamed and flowing from celestial bodies, others under the names of salt, sulfur, spirit, etc. See *Dissertatio praeliminaris ad Physicam* n. 7, 9, and 11. But the Peripatetics are content with the four common elements, provided that the name "element" be taken in the broader sense explained above. For if it is taken for an intrinsic principle, there will be as many species of elements besides matter as there are substantial forms in mixed bodies. They prove, however, that one must stop at the number four: first, because the number of primary qualities is no greater, as all agree; hence if an element is that which demands one of them in a simple degree, there can be only four; second, because no other bodies are known in the sublunary World which deserve the name "element," either by title of simplicity in some primary quality or by title of a general contribution to the generation of mixed bodies. The diversity which is seen in mixed bodies arises from their own proper forms.

24. Question 6: whether the elements differ from one another in substantial species. This must absolutely be affirmed, because a diversity of properties and operations permanently and intrinsically rooted necessarily supposes substantial diversity between fire and water, for example. In the cited *Dissertatio praeliminaris* we sufficiently refuted the Cartesians and many Atomists, whom Tosca follows, who recognize no diversity except as regards the figure and motion of corpuscles. Question 7 concerns the order of dignity or perfection of the elements, both among themselves and in relation to mixed bodies. No one doubts that fire is the most perfect among the elements, which is sufficiently evident from its greatest activity. But that air surpasses water in perfection, and water earth, I judge very uncertain. It also seems uncertain or false that the form of every element is less noble than the form of every mixed body. For why should the form of fire, so exceedingly active and endowed with the ornament of light and heat, not exceed the form of coal? Nor is it an obstacle that the form of a mixed body is said virtually to contain the forms of the elements. For it does not contain them eminently according to their whole perfection, but only according to a certain participation and conformity, as Fr. Suárez well notes, d. 15, *Metaphysica* s. 10, n. 51.

On the Primary Qualities and Their Distribution Among the Elements.

25. Question 8: how do the Elements divide the primary qualities among themselves? Before answering, something must be said concerning the qualities themselves. Among the qualities of the elemental World, those are

called "primary" which do not of themselves and necessarily presuppose any other, while they themselves are presupposed by all the others, which are therefore called "secondary." By the consent of all, the primary qualities are four, namely heat, cold, humidity, and dryness. These were produced together with the elements themselves at the beginning of the World. Then from their various temperament, without which no mixed body is generated, other qualities immediately or mediately result. Among these are numbered colors, tastes, odors, also hardness, softness, rigidity, flexibility, gravity, levity, and the others which are called tactile, for all are believed to arise from those four qualities variously tempered, either as from efficient causes or as from conditions necessarily prerequisite. But note that those alone are properly called secondary qualities which are sensed through themselves, especially by touch, for these are the qualities thought to result from the primary ones. Indeed, sound and light are usually excepted from their number. These, like other more occult qualities inhering in mixed bodies, are called neither primary nor secondary, but neutral. Yet if one wishes to call secondary whatever necessarily presupposes the primary qualities, whether all or some, mediately or immediately, although it does not necessarily result from them, no exception will be required. For even light, which belongs to fire, necessarily presupposes heat, by which matter is prepared for the form of fire. Nor must every secondary quality be less noble than a primary one, for here we speak of primacy not of dignity but of execution.

26. The primary qualities individually are commonly defined from Aristotle thus. Heat is "a quality congregating homogeneous things and separating heterogeneous ones"; cold, "a quality congregating homogeneous and heterogeneous things together"; humidity, "a quality by which a body is rendered easily terminable by alien boundaries but with difficulty by its own"; dryness, "a quality by which a body is rendered difficultly terminable by alien boundaries but easily by its own." Experience favors these definitions. For in distillations and chemical resolutions heat joins similar particles to one another and separates them from dissimilar ones, for example watery particles from earthy ones. Cold, conversely, in ice glues together not only similar parts of the liquid but also whatever dissimilar things it finds there, such as wood, straw, wool, etc. Humidity, or fluidity, renders water difficultly terminable by its own boundaries, that is, not easily retaining its own figure, because unless contained by another body it flows this way and that; yet easily terminable by alien boundaries, that is, easily accommodating itself to the figure of a vessel or any containing body. Finally, dryness causes a stone not easily to lose its own figure or accommodate itself to alien boundaries. Many objections are commonly

made against these definitions, which may be seen solved in the authors, especially the Conimbricenses, in 2, *De generatione* cap. 3, q. 3.

27. Meanwhile it must be admitted that by these definitions, at least by the first and second, the primary concept of the thing defined is not obtained. And perhaps no clearer concept of heat and cold can be found than that corresponding to their common names, which are exceedingly well known from their proper and immediate sensations. As regards humidity, it is there taken for fluidity, although in ordinary speech not every fluid is called humid, but a fluid adhering to the other bodies which it touches. In this sense air is not humid except accidentally from adventitious vapor, although it is exceedingly fluid and Aristotle's definition of humidity applies especially to it. Therefore, when the primary qualities are being treated, humidity is philosophically taken for fluidity in general, of which humidity in the ordinary sense is as it were a certain species, adding as a difference an adhesive force. Others say that the humidity of air and water is of the same species, although water, by reason of its greater density, moistens and adheres more.

28. The Corpuscular Philosophers deny that the primary qualities are absolute accidents, that is, distinct from every substance, modality, and privation. They likewise deny this of the other qualities, wishing them to be merely respective accidents, insofar as they can be present or absent in various bodies without their corruption. To explain the nature of the primary qualities in particular, some first say that heat is rarer fire or an effluvium of fiery particles; others more commonly wish its nature to consist in the rapid and disturbed, tremulous, or vibratory motion of the insensible particles of any body. Cold they commonly assert to be indistinct from the privation or lack of heat, that is, from the rest of the particles or cessation of motion. Humidity, or fluidity, they commonly make consist in the facility of exceedingly subtle particles for motion and in motion itself, such that this motion is toward every difference of place and that this facility arises from the figure of the particles and from the fact that they are joined by no bond to one another, or only by a slight and easily soluble one. Dryness, or solidity, according to the Cartesians consists in the mere rest of particles without any other bond; according to many others, however, besides rest it entails some firm bond of the parts, a mechanical one by hooks or something similar. Many things are alleged for these explanations, and many, very strong, are objected against them; but all must now be deferred elsewhere. Meanwhile we suppose with the Peripatetics that all the primary qualities consist in something positive, as is gathered from the proper sensation of

each; and that they are distinct from every substance and divinely separable from it, as is evident in the Eucharist, and therefore are absolute accidents.

29. As regards the distribution of the primary qualities among the elements, in answer to the Question proposed at n. 25, heat in the highest degree is commonly attributed to fire, cold in the highest degree to water, highest humidity to air, and highest dryness to earth. Commonly also, besides one quality in the highest degree, or as eight, another is attributed to each element in an excellent degree, or near the highest, namely as six or seven. The distribution is thus made that dryness in an excellent degree belongs to fire, heat to air, humidity to water, cold to earth. Hence elements to which a quality of the same name belongs, in one in the highest degree and in another in an excellent degree, are called "symbolic"; those which are similar in no quality are called "asymbolic." Understand this distribution of congenital qualities, or those connaturally due to each element from its proper exigency. For if the discussion is about foreign qualities impressed from without, there is no element, at least among us, which does not also participate in other primary qualities or which retains its own in their connatural degree. This arises both from the action or reaction of one element upon another contiguous to it, and because each has many parts or particles of the others mingled with itself, and also various kinds of mixed bodies, as is manifest in water, earth, and air, and sufficiently shown in fire by the soot left behind. Nor is it absurd that the elements should always be in a somewhat violent state, for the utility of the Universe requires this for the production of various species of mixed bodies from this conflict of the elements. Certainly this violence, since it proceeds from the exigency and action of another natural cause, requires no miracle. Furthermore, it should be noted that the aforesaid distribution is not wholly indubitable. Some wish that highest cold and excellent humidity be attributed to air; excellent cold and highest humidity to water; and excellent heat together with highest dryness to earth. The dryness of fire also can be doubtful, since flame seems to satisfy Aristotle's definition of humidity.

On the Regions of the Elements.

30. Question 9: whether the individual elements have their own proper regions, and in what order of position they are arranged? By the name region is understood the proper place of an element, toward which all its parts innately hasten as toward their proper seat. This place is also called an elemental sphere. The Aristotelian system of the elements places the sphere of fire beneath the concavity of the Moon, that is, between the air and the

Heaven of the Moon; beneath fire it places air, beneath air water, and in the lowest place earth. Yet this arrangement, as regards fire, displeases most philosophers of the present age. First, so vast a sphere of fire, believed to surpass in mass the other three elements taken together, seems entirely useless, since it would neither generate anything within itself nor act outside itself; otherwise it would consume the whole element of air and renew the conflagration of Phaethon, especially since the activity of fire ought there to be more vehement, as existing in its most connatural state and free from contraries. Furthermore, it is proved by no experiment and no efficacious reason. The fact that flame rises does indeed prove that it is lighter than the surrounding air, but does not prove that flame tends toward a center or sphere situated above the air. Thus smoke tends upward, and a rod immersed in water endeavors to rise, yet neither seeks some peculiar sphere. If perhaps one pities fire as deprived of a proper sphere which Nature has bestowed upon the other elements, consolation will be found in the opinion of those who think the Sun to be the proper sphere of fire, as we saw in chapter 2. Another consolation will be the providence of Nature, which has provided a thousand fuels for kindling fire and always preserves a great quantity of it in subterranean places and above the earth. In these places fire is both exceedingly useful to the sublunary World, avoids inactivity or idleness, and enjoys the faculty of exercising its power. I omit other arguments commonly used against the aforesaid region of fire.

31. The Aristotelian system is also commonly attacked insofar as it places water in its proper region, or in the sea, higher than the whole earth. The more common and probable opinion holds rather that water is lower than great parts of the earth, namely mountains and shores, as may be seen in the Conimbricenses, in 2, *De caelo* cap. 14, q. 4. Sacred Scripture also favors this not a little, as when it is said in Ps. 23: "He founded it upon the seas, and established it upon the rivers," namely the orb of the earth; and in Ps. 135: "Who founded the earth upon the waters." Therefore, although at the beginning of the World God created the earth covered on every side with waters, He afterward, as is related in Gen. cap. 1, gathered the waters into one place, that is, into an enormous cavity of the earth which, now filled with waters, is called the sea. This is now the proper region of the element of water, into which all rivers flow by a downward course. Its surface, although somewhat lower than the surface of the earth, nevertheless makes together with it one sphere or one globe enclosed by a common circumference, as mathematicians demonstrate. This terrestrial globe indeed has cavities and elevations, but they are reckoned as nothing in comparison with the great magnitude of the whole globe. Moreover, since the sea rests upon the earth,

and from its bottom to the center of the World a great mass of earth intervenes, the earth is truly said to occupy the lowest place of the World. Water is likewise truly said to be above the earth, although not above the whole of it. Air occupies the whole place from the surface of the terrestrial globe to the lunar Heaven.

32. These elements do not exist pure and unmixed in these their places or regions. For the earth contains within its depths many fires, lakes and veins of water, stones, metals, salts, sulfurs, and bitumens. Water contains fishes, and consequently the things necessary for generating and nourishing fishes, together with not a few others. The air is wholly filled, up to a height of forty or fifty miles, with innumerable vapors and exhalations which proceed from the terrestrial globe, its inhabitants, and mixed bodies. Hence this aerial space is called the "atmosphere," that is, the sphere of vapors. Yet many think that the air is pure from the convex surface of the atmosphere to the Moon. Indeed, there are some who wish that in this space it be called not so much air as pure ether, because it should be called air only insofar as ether is contaminated by vapors, such as is contained within the atmosphere. By the name ether they understand an exceedingly subtle, exceedingly fluid, and supremely diaphanous substance which is the very substance of Heaven, at least of the planetary Heaven, and extends from the Firmament to the earth, although within the atmosphere it loses the name ether and is called air.

33. The Atomists wish this substance to consist of round atoms, or exceedingly small globules, agitated by continual and exceedingly rapid motion. These occupy not only the aforesaid space of heaven and air, but also penetrate earth and water and insinuate themselves deeply into the pores of all bodies, in which they cause an enormous variety of motions. This globular substance, either alone or mixed with another finer dust which in the Cartesian construction of the World is called the first element, is that famous "subtle or ethereal matter" which Cartesians and Atomists everywhere employ to unravel physical difficulties, and without which they scarcely know how to explain anything radically. Some Peripatetics also admit the same, although they do not entirely agree with the Corpuscularists concerning its uses and properties.

On the Gravity and Levity of Elemental Bodies.

34. Final Question: whether motion by gravity or levity belongs to the elements? On the occasion of this Question the motion of heavy bodies is commonly treated here expressly. But from the many things pertaining to it

we shall now select only a few according to the purpose of this synopsis. Gravity is defined as "the principle of motion downward," that is, toward the center of the earth. Levity is "the principle of motion upward," that is, toward the circumference of the World. For these definitions to be correct they must be understood of non-vital motion, for example the upward flight of birds is not from levity; likewise of motion determinately intended precisely because it is upward or downward. Thus motion arising from an extrinsic impetus or impulse is excluded; although it is sometimes upward or downward, this belongs to it accidentally, since of itself it ought merely to be caused in a straight line from the impeller. In the same way motion proceeding from elastic force and from magnetic or electric force is likewise excluded. Cartesians and Atomists deny that the motion of heavy bodies proceeds from an absolute physical quality. To explain the cause of this motion, some have recourse to the magnetism of the earth, or a magnetic effluvium emitted from the earth by which heavy bodies are drawn and light ones repelled; others to the pressure of air; others to the impulse of subtle or ethereal matter; others to a modal impetus, or determination impressed by God upon atoms apart from any proper exigency of theirs; and others think otherwise, so that almost each attacks the others. The common position of the Peripatetics is that heavy bodies are moved by an intrinsic principle, namely an innate absolute quality which is called gravity, whose distinction from substance is shown in the Eucharist, where the gravity of bread and wine remains without the substance. Why the motion of heavy bodies is not vital will be said in the Animastics, where the concept of life is treated. Why likewise the motion of heavy bodies is attributed to the generator by St. Thomas and others is excellently explained by Fr. Suárez, d. 18, *Metaphysica* s. 7, from n. 21.

35. Let the same be said of levity, if positive and absolute levity is given. For many recognize only negative or respective levity, consisting in the absence of greater gravity, or in the lesser gravity of one body in relation to another, so that nothing is called light except comparatively with something heavier, just as wood is called light in comparison with gold of equal bulk. Hence they think that no body is moved upward by its own intrinsic force, but that some things rise because they are forced upward by other heavier bodies endeavoring to occupy the lower place. Thus water in a vessel is raised by stones cast into it, and a wooden board, if immersed, is driven upward by water. This power of forcing upward is attributed to bodies specifically heavier, that is, those which outweigh other bodies of equal bulk, as gold in relation to silver. For if a cubic palm of gold is compared with a cubic palm of silver, it weighs more, although an excess of specific gravity

can be compensated by a greater bulk, since a pound of wool weighs no less than a pound of gold. In sum, gravity is that force by which sublunary or elemental bodies so dispose themselves around the center of the World into one total globe that the heavier endeavor to be beneath the less heavy. Individual bodies are then said to be in their natural place when none has anything specifically heavier above itself or lighter beneath itself. For this purpose positive levity seems useless. The Peripatetics nevertheless commonly admit it, and I do not wish to oppose them on the present occasion.

36. It is certain today, and confirmed by very many experiments, that heavy bodies move downward with accelerated motion, that is, motion continually increasing in velocity, so that it is faster at the end than at the beginning. Therefore a stone reaches the ground with greater impetus the higher the place from which it falls. It is likewise established that this acceleration, or increase of velocity, takes place in equal parts of time according to the progression of odd numbers, namely 1, 3, 5, 7, 9, etc. For, dividing the time spent in motion into equal parts, for example numbered by the pulse of an artery, if a falling heavy body traverses one ell of space during the first pulse, in the second it will traverse three, in the third five, in the fourth seven, and so afterward according to the stated proportion. After Galileo, who first entered upon this calculation, Fathers Riccioli, Dechales, and others demonstrate it by various experiments. The cause of this acceleration is variously assigned according to the various opinions concerning gravity. On Peripatetic principles it seems that gravity, aided by motion congruous to itself, produces in the body in which it inheres a new impulse by whose aid it produces a faster motion. By this motion the impulse becomes more intense, almost in the same way that in the powers of the soul a habit is intensified by the act which it produces, and thus the velocity gradually increases. It does not happen in the same manner in the upward or lateral motion of projectiles, because then the gravity of the projected body resists the motion violent to itself, and consequently causes the impulse gradually to be remitted and the motion retarded. The Peripatetics commonly admit an impulse or impetus which is an absolute quality impressed upon the mobile body and exists wholly for the sake of motion, so that when motion is impeded it immediately perishes. Nor can the cause of the motion of projectiles easily be explained otherwise, although this quality is sufficiently anomalous both in its connection with its effect and in its manner of corruption, concerning which see Fr. Suárez, d. 21, *Metaphysica* s. 3, n. 17.

37. As regards the elements themselves, gravity undoubtedly belongs to earth and water, but in such a way that earth is heavier. The gravity of air was denied by many; but today it scarcely seems possible to deny it after modern experimentalists have demonstrated the weight of air, at least insofar as it exists in the atmosphere, by many experiments which may be seen in the author of *Philosophia Burgundica* tom. 4, tr. 2, dissert. 3, from cap. 7 to the last. Certainly Aristotle recognizes the weight of air, 4, *De caelo* t. 30: "A sign of this," he says, "is that an inflated skin has more weight than an empty one." Aristotle nevertheless wishes levity to be mingled with gravity in air and also in water, and earth alone to be purely heavy and fire purely light. But perhaps it is more true that no degree of positive levity is found in a less heavy body, especially air, for air is not carried upward except when forced out by a heavier body. Hence air enclosed within ice does not endeavor to rise, and when enclosed in a chamber, unless agitated by another cause, it does not strike against the ceiling even if the chamber is constructed underground. The gravity of ordinary fire is also recognized by many, not only in a coal but even in flame, whose weight Robert Boyle examined by an experiment cited by Fr. Jo. Bapt. de Benedictis, tom. 3, *Philosophia* lib. 2, q. 3, c. 4.

38. It is disputed here whether the elements exert gravity in their proper places or regions, that is, whether they there endeavor downward so that bodies beneath them, or the lower parts of the same element, are pressed by the upper parts. A sufficiently received position among the Peripatetics denies this and is commonly proved by reasons of no small weight and also by certain experiments, especially those of divers, who do not feel the weight of seawater. Nevertheless, that the elements exert gravity in their proper places both as one whole, namely the whole air upon the whole terrestrial globe and the whole water of the sea upon the earth beneath it, and divisibly or by parts, so that, for example, a lower part of water is pressed by the upper, is held as indubitable by all experimentalists and as very probable by many Peripatetics. But it is enough to have touched upon the matter here, for it demands a long examination. See Fr. de Benedictis, recently cited, cap. 5, and the author of *Philosophia Burgundica*, l.c., where one will find explained why we do not feel the weight of the air, nor divers the weight of seawater. And indeed, if this experiment may be trusted, water would not exert gravity even outside its proper place, for one immersed in a cask full of water does not feel the weight of the water.

CHAPTER IV.
On Mixed Bodies.

1. A "mixed" body is philosophically said to be one composed of the four elements under a new substantial form. In ordinary speech "mixed" is said of any aggregate of diverse bodies confused together, as of water, wine, cider, without a substantial form being newly produced. The composition from elements, however, is to be understood according to the Peripatetics in the virtual sense which we explained in the preceding chapter, q. 1, namely insofar as a mixed body must be composed of a substantial form participating in the power of the four elements. Hence, as we noted there, a mixed body according to the Peripatetics can be defined as "a body which through itself and intrinsically demands the four primary qualities tempered." The name "mixed" is derived from mixture, which Aristotle, 1, *De generatione*, defines as "the union of altered miscibles." To understand this definition, note 1º that Aristotle calls those things miscible which are easily divisible and at the same time passive and active, and hence can both easily be mixed together and mutually alter one another. Such especially are the four elements.

2. Note 2º that there is a twofold philosophical mixture. One is accidental mixture, antecedent to substantial generation, by which the miscible things are indeed united and altered but are not yet corrupted or transmuted into a new substance. Of this the preceding definition of mixture is literally understood. The other is substantial mixture, or perfect and consummated mixture, which really occurs by the generation of a substantial form virtually containing the four elements. This form, because it identically unites within itself the powers of the elements, is called a "union of miscibles," not in any manner whatsoever but "of altered miscibles," that is, those declining from the highest degree of their proper quality. For the form of a mixed body does not demand the primary qualities in the degree of intensity due to the elements. Note 3º that mixture of the first kind, namely accidental or preliminary mixture, is often found without substantial and consummated mixture, namely when either not all the elements, or not enough of them, are united and altered, or when the ultimate disposition and active power of the new form are absent. An improper mixed body then results, which is called an "imperfect mixed body," in which the elements remain substantially unharmed. Such is mud composed of water and earth, and such are various meteors of which we

shall speak in the following chapter. Therefore a mixed body properly so called, or "perfect," with which alone we are presently concerned, results only from mixture of the second kind, namely substantial mixture.

3. These things being premised, Question 1 asks what kind of temperament of the primary qualities is required for the generation of a mixed body. I answer: this temperament is the complexion or combination of the four primary qualities in a tempered, or non-highest, degree, namely when all are joined in the same matter, somewhat remitted or, as they say, "weakened," each by its contrary, namely heat by cold and humidity by dryness, according to naturally compatible degrees, concerning which we spoke in disp. 3, *De generatione* n. 53 and 57. It is divided into temperament "according to weight" and "according to justice," or, which amounts to the same, into "uniform" and "non-uniform." That is called "according to weight" which contains all the primary qualities in an equal degree, namely as four. That is called "according to justice" which entails those same qualities in precisely that degree which is due to the mixed body according to its species. If a temperament "according to weight" is due to some mixed body, it will simultaneously be "according to justice" with respect to it.

4. Moreover, temperament "according to justice" is divided into as many species as combinations of the four primary qualities can be made. Sometimes one predominates, sometimes another, sometimes two; and the predominance itself can be now by one degree, now two, now several up to seven. From a notable predominance of some quality arises a varied denomination of temperaments, one being called hot, another cold, etc. And because temperament is commonly called "nature," when heat and dryness prevail we say that the mixed body is "of a fiery nature"; when humidity and heat, "of an airy nature"; when cold and humidity, "of a watery nature"; when dryness and cold, "of an earthy nature." Hence in living things, for example in man, there results a varied complexion of the four humors. One who by nature or temperament is fiery has a choleric complexion; one who is airy, sanguine; one who is watery, phlegmatic; one who is earthy, melancholic.

5. Question 2: whether the temperament of the primary qualities suffices for the ultimate disposition to the form of a mixed body? I answer: it seems it must be denied. 1º because otherwise there could not be more species of mixed bodies than combinations of the primary qualities, for one and the same combination cannot ultimately dispose to specifically diverse forms. Yet it seems evident that the specific variety of mixed bodies, being almost infinite, greatly exceeds the variety of such combinations. 2º because some temperament of the four primary qualities is often present, yet no new form

of a mixed body is generated, as may be seen in foods and medicines artfully prepared and in many other things, indeed in the elements themselves as they exist among us. But if nothing else is required for the ultimate disposition, it is incredible that any temperament could be given which is not "according to justice," and therefore ultimately disposing, with respect to some one of the innumerable species of mixed bodies, which consequently ought immediately to be generated. Nor should recourse be had to a defect of an efficient cause, for where the ultimate disposition is given, the First Cause supplies the defect of a second cause according to the common philosophy.

6. Nor likewise should recourse be had to a defect of secondary qualities. For if one speaks of secondary qualities properly so called, the same difficulty exists in them, since, as they necessarily result from the primary, there cannot be a temperament of the primary qualities without corresponding secondary ones. But if one calls secondary those qualities which, although they presuppose the primary, nevertheless do not result from them and are not common to various mixed bodies, one agrees with me. For this is what I intend: for the generation of a perfect mixed body, besides the primary qualities, at least one specific quality is required for the completion of the ultimate disposition, which does not result from the primary qualities and belongs properly to such a mixed body in preference to others specifically diverse. I mean that it belongs to it as a prior disposition antecedent in nature to generation and afterward as a property and instrumental power for operation, in the way heat belongs to fire. According to the variety of this quality, which admits as many species as the mixed body does, the temperament of the primary qualities varies in the character of ultimate disposition. Hence it can occur that two mixed bodies of diverse species consist of the same combination of primary qualities, or of perfectly similar temperament, and differ only in the specific quality. What has thus far been said I understand even of inanimate mixed bodies. In living things the argument presses more strongly, for who would believe that matter can be ultimately disposed to their generation by primary qualities tempered in any manner whatsoever?

7. Question 3: what in general is the productive power of mixed bodies? I answer: concerning the productive power of living mixed bodies we said enough in disp. 1, *De generatione* cap. 2. As regards inanimate mixed bodies, such as stones and metals, which do not seem productive of things like themselves, the common position attributes their production principally to universal causes, namely celestial bodies, especially the Sun, while it attributes instrumental concurrence, at least dispositive, to the primary

qualities variously tempered. But we have already said that the temperament of the primary qualities is not the ultimate disposition to the mixed body unless a specific quality be added. The production of this quality does not seem attributable to celestial causes: first, because such a quality is frequently not produced even though a temperament of the primary qualities is present; second, because there is no reason why universal causes should produce one rather than another among those qualities which can be joined with the same temperament. Therefore, just as in the cited disp. 1, *De generatione* n. 26 and 27 we said that a seminal power is necessary for the generation of living things from putrefaction, so now, with not a few philosophers, we require certain seeds or quasi-seeds also for the production of inanimate mixed bodies. These seeds are certain subtler corporeal substances commonly called "spirits" by the chemists. They are of diverse character according to the diversity of mixed bodies, so that one is a petrifying spirit, another metallic; and among these one gem-producing, another stone-producing, another gold-producing, etc. Their office is to produce the specific qualities for the ultimate disposition of matter and also actively to concur instrumentally toward the substantial form of the mixed body, although the principal influence is attributed to the universal causes once the determination of the seeds is posited.

8. One may say: these seeds or spirits are also mixed bodies whose production will require other seeds, and so to infinity. I answer: these spirits are in part produced and evaporated from previously produced mixed bodies to which they are proper, just as the seeds of plants are generated by the plants themselves. They derive their first origin, however, from mixed bodies produced at the beginning of the World by the power of God alone. For it is most probable that at that time God produced, just as plants and animals, so also every kind of stone, metal, and other fossil. Hence one will gather that any inanimate mixed body can be produced from its like through a seminal power. Furthermore, it is not improbable that God from the beginning produced many seeds of this kind which, dispersed throughout the regions of the elements, are preserved as in common seedbeds, especially in water, according to those words of Marius Victor, alluding to Gen. 1, "The Spirit of the Lord was borne over the waters":

> *"And the sacred Spirit, hovering above with outspread wings, gave life to the fostering waters, bestowing the seeds of things."*

Perhaps nothing else is signified by the "seminal reasons" asserted by St. Augustine in the books *De Genesi ad litteram*, where he frequently teaches that they were produced by God at the beginning of the World so that

various species of things might afterward be generated from them. "From these, as from the first beginnings of things," he says, lib. 9, c. 47, "all things which are generated take, each at its own time, their origin and development." He understands this not only of the seeds of living things but generally of the seeds of mixed bodies and of their dispersion through the elements. Hence, lib. 3, *De Trinitate* cap. 8, he says: "Of all things which are born corporeally and visibly, certain hidden seeds lie concealed in these corporeal elements of this World."

Certain Matters Concerning Stones, Metals, and Other Fossils Are Briefly Touched Upon.

9. Question 4: what else should be noted concerning the various kinds of mixed bodies in particular? I answer: a mixed body is divided into animate and inanimate. Something has been said of the animate or living in the treatise *De generatione*, and more will be said in the Animastics. The inanimate can be subdivided into two kinds. One contains mixed bodies which are generated for the most part within the earth and are called "fossils." The other comprises those which are produced from living things or on their occasion, such as corpses, wood, etc., and also various juices, humors, or liquids, such as resin, milk, wine, cider, olive oil, etc. These are not usually treated at present. Therefore only something concerning fossils is to be said here. Four kinds of fossils are commonly distinguished, namely salts, sulfurs, stones, and metals. According to Aristotle, 3, *Meteorologica*, the proximate matter of all these is formed from a twofold exhalation, one dry or earthy, the other humid or watery. When the dry predominates, salts, sulfurs, and stones are generated according to the various modes or degrees of predominance. Metals, however, are produced when the humid predominates or is moderately tempered by the dry. But although it be granted that from the confluence and mingling of these exhalations, in which intense heat and some cold are also supposed, matter proximately prepared as regards the temperament of the primary qualities results, the generation of fossils does not therefore follow unless there is further present a seminal power proportioned to each, as is clear from what has been said. And because this power is not everywhere ready at hand, a fossil mixed body is not generated everywhere even though a confluence of such exhalations be present.

10. By the name "salt" is commonly understood a body hard and rough of itself which dissolves in water. Five or six better-known species are enumerated. 1º common and ordinary salt, which is judged to be of a dry and

earthy nature, although to others it seems generated from an equitable mixture of the elements. 2º nitre, whose nature is thought fiery and airy. Saltpetre, halinitre, and salpetre are often taken for the same thing, although some recognize a difference among them. 3º vitriol, which occurs in ferruginous and copper-bearing soils and is therefore regarded as a kind of excrement of iron and copper. Cold predominates in it. 4º alum, in which cold together with dryness also predominates. 5º ammoniac salt, which is formed from common salt and volatile nitre, as also rock salt from fixed nitre and common salt. In each of these species there is contained "volatile salt and fixed salt," which are as it were two portions of the same salt, indeed mingled, but differing in subtlety and mobility. Hence when they are separated by the action of fire, one flies upward before the other. Experimental physicists together with the chemists treat fully of the nature of salt and its other various species, which are almost as numerous as the species of mixed bodies, since its own salt is extracted from any mixed body.

11. "Sulfurs" are fatty or oily and viscous juices generated from the earth and very easily inflammable, by which their fiery nature is manifested. One sulfur is common and prepared by art; another is mineral, which they call "living," and which is frequently dug out near volcanic mountains. Bitumens are reckoned among sulfurs because of their great kinship. There are various kinds of bitumen besides the common, which is black, fetid, and bitter. They differ sensibly in color and odor and also in fluidity and consistency, one being liquid like oil, another thick like mud, another almost hard like stone. They also receive various names, such as naphtha, asphalt, jet, amber, ambergris, etc. Naturalists disagree, however, concerning amber and ambergris, for some think them to be a kind of gum or resin flowing from trees, while others number them among bituminous and fossil juices.

12. Amber possesses a force of attracting straws and bodies of almost every kind, provided they are small and easily movable. This force is also possessed by the harder bitumens, glass, various gems, and many other oily, hard, smooth, or polished bodies. It is nevertheless called "electric force," because it especially flourishes in amber; hence other bodies endowed with a similar force are called electric. But in what this force consists or how it operates is doubtful. Some have recourse to sympathy or an occult quality; others to an effluvium or viscous exhalation. In the latter the moderns agree, especially the Corpuscularists, although among themselves they disagree concerning the manner of attraction through the exhalation. But of this elsewhere.

13. "Stones" are called hard bodies which cannot be drawn out by a hammer, dissolved by water, liquefied by heat, or serve as fuel for fire. They

are generated from a viscous and tenacious humor with which much earth and some salt are mingled, together with the addition of a petrifying spirit, if perhaps this is distinct from the dry saline spirit. According to the variety of this spirit and of that humor, the species of stones vary, and these are very many, both precious and common. Some deny that stones are perfect mixed bodies and judge them to be mere portions of hardened earth, and therefore not to differ from one another in substantial species. But this is an exceedingly strange opinion, especially if it speaks also of diamond, sapphire, topaz, and the other gems. For in these are plainly found indications of perfect mixture such as is prescribed by Philosophy, whether Peripatetic or Corpuscular. Almost the same reason holds of alabaster, porphyry, jasper, indeed flint and other common stones, which have their own peculiar properties intrinsically rooted.

14. Among stones none is more worthy of admiration than the magnet. This would be the place to discuss its marvelous force, which from it is called "magnetic force," were it not for the brevity promised. The magnet has a directive and an attractive force. By the directive force a magnet directs its poles toward the poles of the World, for it possesses as it were poles of its own which it spontaneously turns toward the cardinal points of the World, so that with one it regards the South and with the other the North, provided it can move freely, as when placed upon a little boat floating in a vessel of water. It also communicates this force to iron, especially when the latter is applied to its poles. For if a steel needle is applied to the southern pole of the magnet, it afterward regards the North. Almost the entire art of navigation depends upon this magnetic direction. By its attractive force the magnet draws iron and another magnet to itself, or itself runs toward the iron when it can move more freely. This force also, which is often not impeded by another body interposed, for example a wooden board, it communicates to iron, especially pure iron or steel, which when imbued with magnetic force draws other steel to itself. There are many other phenomena of magnetic power, as that two magnets do not mutually attract one another unless the northern face of one regards the southern face of the other. For if they are brought together by like-named poles, they mutually repel one another.

15. From these things it is evident that there is a great difference between magnetic and electric force. For the electric is purely attractive, not directive; it is also weaker and acts upon nothing when any heavier body is interposed. It also inheres in many bodies of diverse kinds and indifferently draws almost all light corpuscles. But whether magnetic force is to be reduced to substantial form, to a sympathetic or unnamed quality, or rather

to an efflux of insensible corpuscles, whether flowing from the magnet or from the terrestrial globe, which many wish to be a great magnet or at least to contain within its depths a magnetic rock or vein running diametrically from pole to pole, is a question requiring lengthy discussion. Besides *Philosophia Burgundica* tom. 5 and Tosca, *Compendium philosophicum* tom. 4, see Fr. Jo. Bapt. de Benedictis, tom. 3, *Philosophia* l. 3, q. 5, c. 4, and Fr. Joan Ulloa, *Philosophia naturalis* disput. 3, from n. 44 to 77.

16. "Metals" are called bodies hard of themselves but nevertheless ductile and liquefiable, because they can be liquefied by violent heat and, when beaten with a hammer, extended into plates. Seven species of metals are commonly numbered, namely gold, silver, copper, iron, lead, tin, and quicksilver, which is also called mercury and living silver. But some remove tin because it is a mixture of lead and silver, or more refined lead, just as steel is purer iron. Others not without reason exclude quicksilver, whose fluidity departs from the nature of metal; rather, together with sulfur, they wish it to be the common matter of metals, especially the chemists. As regards their matter, however, metals are commonly believed to be generated from vapor and exhalation, or from the mingling of humid and dry exhalations. Others prefer to employ a certain saline substance which, gradually cooked and digested, acquires metallic hardness. Whatever the matter may be, however, if the metallic spirit mentioned above is absent, no metal will be generated. Alchemists teach that metals do not differ from one another in substantial species, but only in degree of perfection or purity, so that they may more easily proclaim the transmutation of any metal into gold by means of their fantastical Philosophers' Stone. But as that end is exceedingly vain, so too this specific identity is wholly improbable.

17. Besides those thus far enumerated, there are other fossils which are called metallic or mineral because they are in some manner akin to metals and are dug out near their veins. Such are stibium or antimony, litharge, pyrites stone, commonly called marcasite, minium, arsenic, etc. Nor is there any doubt that besides these and the other fossils commonly designated by proper names there are very many others generated in the bosom of the earth as in the womb of a common mother. These together with the others, resolved by the heat of the Sun or subterranean fire, continually exhale through the passages of the earth and, dispersed through the atmosphere, provide matter for the meteors, of which in the following chapter.

CHAPTER V.
On Meteors.

1. "Meteor" generally signifies "something aloft"; but specifically certain effects or impressions which occur in the upper air are called meteors, such as lightning, thunder, etc. Under the same name are also commonly comprehended certain other impressions arising from the same matter in water and earth, such as the tides of the sea, the springing of fountains, earthquakes, thermal springs, etc. The matter of meteors is exhalation, of which there are two kinds, vapor and exhalation properly so called. In vapor heat and humidity predominate; in exhalation heat and dryness. An exhalation which is subtler and sharper is called spirit; one which is grosser and more feculent is called smoke. Although it is commonly said that exhalation flows from earth and vapor from water, this must be understood not of earth and water alone or pure, but together with all mixed bodies dwelling in each element. For from almost all bodies particles of matter continually flow forth, attenuated and rarefied by heat, and their outflows we call exhalations. This is manifest in living things and in all things sensibly odorous, and can scarcely be doubted in the others. Hence the atmosphere abounds in innumerable foreign corpuscles specifically distinct, namely innumerable exhalations, not only earthy and watery but also sulfurous, bituminous, nitrous, saline, metallic, etc. The common opinion is that such exhalations generally retain the nature and substance of the mixed bodies, with the exception of the form of living things, from which they flow, although affected by foreign qualities; nor do they always lose it when they are formed into meteors. Hence many meteors, such as cloud, snow, hail, rainbow, and others, are imperfect mixed bodies which do not introduce a new substantial form.

2. The cause of the evaporation or emission of so many exhalations from the bodies mentioned is heat, as almost all agree. But because innate heat, especially in non-living bodies, does not seem sufficient for so great a quantity of exhalations, recourse is everywhere had to the heat of the Sun, which in fact contributes very greatly in those bodies which are not deeply hidden beneath earth or water. Yet the heat of the Sun does not penetrate the earth beyond a few feet, while it is otherwise certain that heat is felt in the deepest metal mines, that manifold exhalations rise there, and that very many fossil mixed bodies are generated in the deep interior of the earth, whose generation cannot occur without heat. Hence some have recourse to

the conflict of diverse salts by which subterranean heat is excited. But the common opinion of philosophers today recognizes subterranean fires perpetually burning in great repositories of fire or furnaces throughout the deeper interior of the earth, and derives from these fires heat and influence for very many effects, especially both the generation of fossils and their resolution into exhalations.

3. Two objections are commonly made against subterranean fires: 1º lack of fuel; 2º lack of respiration. But as regards fuel, the same difficulty exists in volcanoes, or places and mountains emitting fire, which are notoriously known to burn perpetually in various parts of the world. God kindled subterranean fire in the principal repositories of fire from the beginning of the World and prepared abundant combustible matter for nourishing it, especially sulfur and bitumen. As much of this as is consumed on one side is restored on another by the generation of new fuel from the matter supplied by earth and water and from the very matter of the consumed fuel, which after various transformations again returns to the same form. Hence there is no reason to fear that the mass of the earth will finally be consumed, just as it is not consumed by supplying matter to innumerable mixed bodies, since it recovers the same amount of matter by the corruption of mixed bodies. As regards respiration, first, the repositories of fire can be sufficiently broad for the fire to spread out. Second, there are as many vents into our air as there are volcanoes or fire-emitting mountains in the world, which provident Nature has for this reason distributed through all parts of the World, namely Europe, Africa, Asia, and America. Through these as through mouths even fires distant in place can breathe, because of the communication they have with one another through deep cavities of the earth running even beneath the sea floor. Hence fires beneath Spain or France can breathe through Vesuvius and Etna. It is nevertheless consistent with this that a new fire is sometimes kindled in other caverns of the earth which, as happens in military mines, ruptures the earth for the sake of respiration. But let us now briefly explain the meteors individually.

On Cloud, Thunderbolt, Lightning, and Thunder.

4. A cloud is commonly defined as "vapor condensed in the middle region of the air." Three partial regions are distinguished as it were within the sphere of the air. The first, or lowest, extends from the earth to the clouds nearer our air. The second contains all that space which can be occupied by clouds more or less elevated, for some are higher than others. The third is the remaining space of air up to the lunar Heaven or the sphere

of fire, if one exists. Others also comprehend the third region of the air within the atmosphere, so that it is the space extending from the highest clouds to the convex surface of the atmosphere, into which only the subtler exhalations ascend which cannot grow into a cloud. Therefore clouds are suspended in the middle region because they there obtain equilibrium of weight with the air. For the lower region of air, because more compressed, is heavier and drives the matter of clouds upward. Sometimes, however, a cloud becomes heavier than the air and falls entire to the earth. The impulse of new exhalations continually ascending from earth and water can also assist the forcing upward or suspension of clouds. Watery vapors are condensed by their native cold, which they more easily recover in the middle region because they are farther from the vehement reflection of solar rays caused by the surface of the earth. Moreover, a cloud is not so composed of vapors that it does not mingle many exhalations with them. Indeed, sometimes it is for the greater part an aggregate of exhalations which are driven and united by winds existing in the middle region. Hence sterile or dry clouds are often formed which are never resolved into rain.

5. A thunderbolt is "a flame kindled aloft and hurled with violent impetus." Lightning is "the brightness of a thunderbolt"; it is also frequently taken for a rarer flame suddenly kindled which has no power to burn. Thunder is "the crash resulting from the violent rupture of air." The manner in which these meteors regularly occur is this. In a vaporous cloud a nitrous and sulfurous exhalation is often enclosed and accumulated, more copious in summer than in winter because at that time a greater quantity of such exhalations flows from the earth. This exhalation is the matter of thunderbolts and lightning, namely when it becomes excessively heated either by the fiery particles which it carries with itself and which the condensed cloud gathers and compresses, or by solar rays refracted in the cloud. Then from these same causes it suddenly catches fire and, suddenly rarefied and seeking a larger place, breaks through the cloud with great force and lashes the neighboring air, whence thunder results. At the same time it hurls forth the flame in which thunderbolt together with lightning consists. But if the exhalation is thin or subtle and weak, it passes into a rarer and quasi-fatuous flame, commonly taken merely for lightning. If, however, it is thicker and fattier and more suitable for receiving impulse, it is then turned into a burning and sharp flame which by the impetus conceived from the violent eruption reaches even the earth. This alone is commonly called a thunderbolt.

6. Hence a thunderbolt is not a stone hurled from a cloud, as is commonly believed, although sometimes it may carry a stone with itself if

some portion of the cloud is affected by such dispositions that with the addition of the heat of fire it readily petrifies. For experience has shown that if certain portions of nitre and sulfur are mixed with the earth which settles from rainwater at the bottom of a vessel, and the whole mixture is then ignited, it congeals in a moment into a certain stone. A thunderbolt, therefore, properly consists in a portion of fire hurled from the clouds, as we have explained. Sometimes it does not reach the earth, either because the impetus is insufficient or because it breaks out from the side or upper part of the cloud. Sometimes it is driven all the way to the earth. Most commonly, however, it descends obliquely, either because of the resistance and agitation of the air or because the cloud is ruptured by an oblique wound. Hence it happens that a thunderbolt more frequently strikes higher objects, such as mountains, towers, and trees, because when carried through the air by oblique motion it more readily encounters things that are higher.

7. The marvelous effects of thunderbolts must be reduced to the various qualities of their matter. For example, when a thunderbolt melts an enclosed sword while leaving the sheath unharmed, or coins while leaving the purse intact, or breaks the bones of a man while leaving his flesh whole, this arises because the flame of the thunderbolt is subtler and sharper. Hence, rapidly insinuating itself through the pores of softer bodies which easily yield, it passes through without injury and does not remain long enough for combustion; but harder bodies, since they resist more, force that flame to adhere longer to themselves and therefore experience its force. Conversely, it often happens that a thunderbolt consumes the clothes or hair of a man and yet does not harm the man himself, namely because it is of an oily nature and a milder flame which can harm only bodies offering little resistance or easily combustible. See the Conimbricenses here, tr. 2, c. 6.

On Rain, Hail, Snow, Ice, Dew, and Mist.

8. Rain is a cloud resolved into water. For vapor already gathered into a cloud, if it becomes colder, denser, and heavier, is resolved into drops of water, as can be seen on the lid of a boiling pot. When exceedingly small drops fall, the rain is called drizzle; when somewhat larger, rain; when very large, a downpour. Indeed, at the beginning of rain and near the cloud nothing descends except drizzle, consisting of very fine drops or threads of droplets, from which, joining together in their descent, larger drops are formed. Various kinds of mixed bodies are reported sometimes to have fallen with rain, such as frogs, fishes, iron, stones, milk, and blood. If this is true and happened without miracle, it can be attributed to one of two causes. 1º

because such mixed bodies were carried from the earth into the air by some violent whirlwind or typhoon and afterward fall with the rain. 2º because they are generated in the atmosphere itself from a determinate confluence of vapors and exhalations of manifold and diverse nature. Blood and milk, however, if they sometimes seem to fall in rain, do not have the true but only an imitative nature of blood or milk, being in reality thicker portions of water tinged with redness or a milky color.

9. Hail is formed from drops of water falling from a cloud and frozen in their descent, not only by the force of cold but also by the accession of spirits of salt and nitre. Because these drops are twisted into a circle by the wind, they are shaped into globes. Snow is made from the aforesaid threads of the first drizzle before they are united into drops, namely when they freeze through cold and a saline spirit and, slightly adhering to one another, are rolled into flakes which enclose much air. Hence arises the whiteness of snow, because water mingled with air commonly whitens, as is seen in foam. Hail differs from snow only by greater dryness and a more solid compaction of parts, arising from a greater quantity of salt, perhaps also of a different kind. If it be asked why snow does not fall in summer as hail does, some answer that snow is formed near the clouds even in summer, but when it descends it is dissolved into water by the heat of the lowest region, by which hail, being more solid, is not so easily dissolved. Others have recourse to the quantity of saline spirit, which flows upward from the earth more abundantly in summer than in winter and does not permit the freezing of rain dripping from the clouds to stop at snowy flakes, but carries it to the solidity of hail, just as, conversely, excessive heat does not roast but scorches.

10. Ice is a liquid hardened by intense cold, with the simultaneous concurrence of a drying spirit, such as the spirit of salt of nitre. Hence cold alone, however intense, does not suffice to produce ice. For water in the depth of the sea, as divers testify, is exceedingly cold, yet not frozen. Conversely, when water is turned to ice by surrounding snow mixed with salt, it is felt to be less cold, or certainly no colder, than when on another occasion it is chilled by agitation in a vessel surrounded with snow while nevertheless remaining liquid. Hence one would wrongly say that water, because it naturally demands the highest cold, is not in its connatural state unless frozen. The common persuasion is that frozen water is of itself not rarer but rather denser than liquid water, because its particles are more compacted or constricted. Nor is it an obstacle that frozen water sometimes occupies more place than liquid water and seems lighter because ice floats. For ice encloses within itself many sensible particles of air, from which arise

its greater extension and greater levity, but not rarity, because rarity does not arise through a sensible mixture of a foreign body, as was noted in its place.

11. Dew is a thin vapor which, raised from the earth by the gentle heat of the setting Sun, does not ascend beyond the lowest region of the air, and, condensed by nocturnal cold, falls during the night and at early morning is resolved into little drops. Hoarfrost differs from dew only insofar as it is frozen by sharper cold and abounds more greatly in spirit of nitre. Also akin to dew is the evening moisture which under a clear Heaven after sunset wets the grass and in many places is commonly harmful, especially to men whose pores are more open. This differs from dew only because it descends more quickly and imbibes more of the sharp exhalation. Moreover, when a fatty exhalation is mingled with dew and at the same time an appropriate temperature of Heaven is present, imperfect or incipient honey is made, which bees afterward digest more fully and perfect. Hence dew frequently displays a honeyed taste upon little flowers and the leaves of trees; hence also bees do not collect honey when dew is lacking even though flowers are not.

12. Mist is a dark exhalation resting upon the earth. Its matter, at least for the greater part, seems to be earthy exhalation which because of its gravity and thickness cannot ascend to the middle region of the air or depart far from the earth. Hence mist is commonly judged dry and unproductive of moisture, and is usually a sign of clear weather. Yet watery vapor is often mixed with it, especially in those mists which rise from rivers and marshy places. Hence it sometimes happens that things which were previously mists, when afterward raised higher, become clouds capable of resolution into rain. Concerning these vaporous mists I judge true what some say, that they differ from clouds only because they are heavier and nearer the earth.

On Winds.

13. Wind is an immense mass of respirable matter flowing with vehement impetus like a torrent. Hence not every agitated portion of air, such as is moved by bellows, suffices for wind, but an immense mass is required, and one flowing with no small impetus. For if it is gently moved, it is called not wind but a breeze. By the name “respirable matter” is understood atmospheric air, which alone is apt for respiration; consequently air is understood not as pure, such as exists beyond the atmosphere, but as mingled with innumerable exhalations of diverse kinds. Air so understood is the matter of winds; impetus is their form. Several Peripatetics wish

exhalation alone to be the matter of winds, just as the Cartesians wish only rarefied vapor. But both are rejected by most others because, when wind blows, exhalations of every kind together with the parts of air are agitated, flow, and strike bodies encountered. Therefore all participate in the impetus proper to the matter of winds. It should nevertheless not be denied that exhalation predominates in drier winds excited from the earth, while vapor predominates in more humid winds, which often arise from rivers and almost always from the sea. Although manifold exhalation arises from the sea, more vapor is nevertheless drawn from it.

14. The origin of the impetus and agitation of winds is reckoned among the mysteries of nature which remain for the greater part unknown. I shall nevertheless set forth certain probable causes devised by philosophers to which this agitation can severally be attributed. For it does not always have one and the same cause, but is manifold and diverse according to the diversity of circumstances. Thus 1º wind can be stirred up by the rapid dilation or rarefaction of some great mass of atmospheric air. For if, for example, the air existing in a broad and deep valley suddenly becomes rare and with impetus seeks a larger place, it will drive the upper air and force it to flow violently elsewhere, thereby producing wind. Thus in lime kilns, when the moisture of the stones and enclosed air are rarefied by heat, a vehement blast not unlike wind bursts through the mouth of the furnace. Conversely, wind can also be stirred up by the rapid condensation of a great mass of air. For then neighboring parts, and afterward others successively, will be moved with impetus to occupy the place abandoned by the condensed and previously moved parts. Thus when a lime kiln cools and the matter within is condensed, external air commonly bursts through the mouth of the furnace with such impetus that it carries with it flies hovering nearby.

15. 3º wind can be excited when an immense quantity of exhalations ascending more rapidly than usual is repelled by the density and cold of the middle region and, rebounding upon the air beneath it, violently disturbs it. 4º also when a cloud heavy or dense with rain descends with impetus and compresses with great force the lower mass of air. As this endeavors to expand sideways through its innate elastic force, it violently agitates other parts of the air. Hence wind commonly precedes watery whirlwinds. Hence also we often experience winds as though falling from above and being agitated around every side, or in every direction, which can be attributed either to this or the preceding cause. 5º when much snow melts on mountains and releases much air which it contains condensed or compressed, rendering it free or rarefied. For in order to make room for

itself this air will strongly drive the rest. 6º from rapid and abundant evaporation or exhalation of sea and earth, especially if much nitro-saline exhalation, which is thought especially flatulent, continually issues forth. For this will immediately excite disturbance and agitation in the lowest region. 7º, to omit other causes, from air moved in subterranean cavities by rarefaction or the accession of exhalations. Impatient of confinement, it rushes wherever an exit is given and sweeps through lands in a whirlwind, which it will do more violently if it bursts forth constricted through narrow vents.

16. These can be called the immediate causes of winds. The mediate and principal, or radical, causes are the stars, especially the Sun and Moon, and also subterranean fires. From these causes arise rarefaction and condensation of respirable matter, melting of snow, agitation, and drawing forth of exhalations. Thus wind is frequently excited when the Sun rises, and also at the principal changes of the Moon and conjunctions of the Planets. Thus from certain caves wind continually blows because matter is rarefied by subterranean fires. That wind flows toward one part rather than another usually does not arise through itself from the cause stirring and impelling it, which of its own nature either determines no one part rather than others or more frequently intends motion upward. It therefore arises accidentally from the fact that the air on the side toward which the wind flows is found weaker and more easily movable because of greater humidity, rarity, or other accidents. The distinction of winds is commonly taken from the parts of the horizon from which they blow. The principal are four: Eurus, or the east wind, blowing from the east; Zephyrus, or Favonius, from the west; Boreas, or Aquilo, from the north; Auster, or Notus, from the south. Besides these many collateral winds are numbered, and sailors distinguish thirty-two. Their properties are derived from the regions through which they pass to us and from the nature of the various exhalations of which they consist. Hence some are cold, others hot, some unhealthy, others healthful, etc.

On Comets.

17. Prescinding from opinions, a Comet can be defined or described as a luminous body of round figure which suddenly appears aloft and again disappears from sight, in such a way, however, that it appears rarely and without any fixed law hitherto known, and endures at least several days, sometimes several months, sometimes a whole year and beyond. A comet is called "hairy," or "comate," when it diffuses rays of light around itself like hair; "bearded" when it extends from one side a small appendage of rays like

a beard; "tailed" when it extends the appendage of rays farther like a tail; "sickle-shaped" when it displays this same tail curved like a sickle. That supralunar comets are given is at the present time a settled position of astronomers, concerning which we said something above in chapter 2. Nor could anyone easily dissent unless he denied credibility to very many most exact astronomical observations. Concerning the matter of such comets there is great variety of opinions. Some think that supralunar comets are not newly generated or really corrupted, but are stars of the genus of Planets, no less ancient and permanent than the Planets themselves, although they rarely come into view because for the most part either they are overwhelmed by the solar rays or are too distant from the Earth. Most, however, judge them to be newly formed, either from some portion of celestial matter which when condensed reflects light, or from certain fumes hurled from the Planets, especially the Sun; and that when this matter is afterward dissipated the comets vanish. I omit other less probable opinions.

18. Many moderns deny that sublunary comets properly so called can exist. But philosophers commonly recognize them together with many astronomers, namely as formed in the highest region of the air from exhalations which sometimes ascend even that far and are gathered in great quantity. Various observations favor this, such as that sometimes a comet has been seen to hang over only one city or region, such as that recorded before the destruction of Jerusalem; likewise that sometimes a comet has obscured the Moon; and that at times it has emitted sparks into the lower air. Nor is there any reason why these sublunary bodies should be called comets improperly, since in brightness, figure, and duration they agree with celestial comets. One may say that they cannot agree in the daily motion from east to west which is proper to comets. But first, although this motion is noted in celestial comets, it is gratuitously supposed to be proper to every true comet. Second, why could a comet not have that motion in the highest region of the air, which is commonly believed to be revolved by the motion and impulse of celestial bodies? One may further say that all comets observed during nearly two centuries have been celestial and supralunar. Let it be so; but why must sublunary comets appear in every century?

19. The matter of these comets, according to most philosophers, is a thick and fatty exhalation consisting of well-compacted parts and formed into a globe by the rotation of the highest region. Hence it is tenacious of flame and burns for a long time; for if it had thin and easily dissoluble parts it would soon vanish, as happens with other fiery meteors. This exhalation is ignited either by solar rays or even by a thunderbolt hurled upward from a cloud beneath it. Hence the comet, since it is truly ignited, shines by its own

light. In this opinion, however, it is difficult to explain why the tail of a comet is always seen turned away from the Sun. Therefore others prefer that a comet be formed from smoky vapors gathered in the highest region, sufficiently dense indeed to reflect the light of the Sun toward us, yet not so opaque as not to retain some transparency through which solar rays, transmitted and refracted, mark out on the opposite side a whitish tract which we call the comet's tail. That this tail sometimes appears curved arises from the varying refraction of visual species by a medium variously disposed, just as a rod, although straight, sometimes appears curved beneath water. But against this opinion it can be objected that if a comet had only light borrowed from the Sun, it would sometimes suffer an eclipse by the interposition of the earth, as the Moon does; yet this has not hitherto been observed, according to the Conimbricenses. The same variety of opinions concerning proper or borrowed light exists also regarding supralunar comets. Perhaps some are truly fiery, while others are illuminated purely from without, and hence some are reddish, others whitish.

20. The motion of supralunar comets is twofold, or quasi-twofold, as in the Planets: one daily from east to west; the other from west to east, and this more oblique and anomalous than in the Planets. Both can be attributed to the same cause as the motion of the stars. Sublunary comets, however, are not always carried from east to west. Sometimes they have been seen immovable; sometimes moving tumultuously upward, downward, and toward various parts of the horizon. This variety can arise either from the encounter of other effluvia or because fuel comes to the burning comet from this or that side, for fire seems to tend toward the side from which fuel is supplied to it. Comets, as is commonly believed, foretell violent windstorms, drought, and sterility of the earth, effects which they can physically cause through effluvia and qualities. They are also everywhere regarded as unhappy and ominous prognostics of human events, as though they portended the deaths of Kings, wars, seditions, etc. Several Fathers and theologians refer this solely to the will and providence of God, who uses comets as signs at His pleasure of calamities of this kind. Yet this is not an unshaken rule, for many comets are recorded as either wholly harmless or favorable and fortunate.

On the Other Luminous and Fiery Meteors.

21. The Galaxy, or "Milky Way," or "Milky Circle," which on a clear night appears like a white cloud encircling the hemisphere, was numbered among meteors by the ancients with Aristotle, as though it resulted from vaporous

matter. But since the invention of the telescope it is certainly established that this circle in the Firmament is produced by the multitude or aggregate of exceedingly small stars which, because of their number and smallness, mingle and confuse their light in relation to us. The same must be judged concerning the stars called "Nebulous," which to the naked eye appear like little whitish clouds; for in reality they are aggregates of stars confusing their light as in the Galaxy.

22. The Rainbow is rightly numbered among luminous meteors. It is a multicolored arc appearing in a dewy cloud from the varied reflection and refraction of the rays of the Sun. It is formed when a cloud opaque at the back and diaphanous on its outer face, presenting or dripping numerous drops of water as though chained together, is opposed to the Sun. The principal colors of the Rainbow are three, scarlet, green, and red or purple, with which others are sometimes mingled according to the Poet's words, "It draws a thousand varied colors from the opposing Sun." These colors are commonly judged apparent, or indistinct from light variously refracted, no otherwise than in a triangular glass or prism opposed to the rays of the Sun, where similar colors appear; likewise in drops of dew scattered over the green grasses of a meadow if viewed from a certain place at sunrise; and especially in certain fountains which throw water upward and spray it, divided into many closely packed droplets. In these, with the Sun opposite, I remember more than once seeing a vivid and perfect Rainbow. There are nevertheless some who contend that the colors of the Rainbow are true colors distinct from light, on which see Fr. Jo. Ulloa, *Philosophia naturalis* disp. 3, n. 243 sqq. Whence the arched figure of the Rainbow arises and how light must be refracted for its colors to be formed is fully explained by the author of *Philosophia Burgundica* tom. 5, tr. 2, cap. penult.; but the explanation cannot easily be reduced to a compendium. I add only that although the Rainbow is a natural effect and existed before the flood of Noah, nevertheless from that time it has been a sign that no future flood will occur, not indeed of itself but by divine good pleasure.

23. Parhelia are said to occur when two or more Suns appear as though existing in the Heaven. It is commonly believed that this phenomenon is caused by the reflection of solar light, namely that a frozen cloud, polished like a mirror, represents to us a perfect image of the Sun. But because it is difficult to conceive how a frozen cloud can be sustained in the upper air, and because parhelia sometimes appear in places where the Heaven is clear and free of clouds, others more probably judge that parhelia are caused by the refraction of solar rays as they pass to us through a vaporous and unequally disposed medium, just as through a many-faced glass an object

appears multiplied. If this phenomenon occurs in the Moon, it is called a Paraselene.

24. Halos, or "Crowns," are whitish circles more frequently seen around the Moon, sometimes also around the Sun or another of the brighter stars. Their matter is a semidiaphanous vapor interposed between us and the star which, causing a twofold refraction of the rays, presents to us a white brightness in the form of a circle, called by the Greeks "Halo" and by the Latins "Corona" or "Area." Something similar is commonly seen at night around lamps when the air is considerably vaporous. "Rods" are vapors or somewhat dewy little clouds, narrow and extended lengthwise, which are variously colored by solar rays refracted there, as in the Rainbow. They receive their name from a figure not unlike rods or spears. To this also pertain the Colors of clouds of any figure, which sometimes appear white, sometimes red, sometimes ferruginous, etc. This diversity usually arises from the diverse density of the clouds and their position receiving and refracting the light of the Sun in diverse ways. These are the more frequent meteors from vaporous matter, not ignited but purely luminous, namely from without.

25. From inflammable exhalation, now thick, now subtle, now endowed with this or that mass and figure, various fiery meteors are generated which vanish after a short time. Such are "running stars," and sometimes "falling stars," which on a clear night assume the figure of little stars. They are driven by the wind, or rather seem to be carried in the direction in which the line of fuel leads, just as fire seems to run along a line of gunpowder. The "flying dragon," which curves like a dragon and seems to vomit sparks from its mouth. "Leaping goats," which diffuse rays like the hair and little beard of a goat and imitate the leaps of goats by their motion. "Beams" or "Spears," which extend upward and seem to stand immovable. In these and other things of this sort, ignition arises from the Sun or from fiery particles mingled with the exhalation. Their figures and motions, however, are accidental, namely from the varied impulse of winds, the fortuitous conjunction of exhalations, and diverse gravity. For if among the exhalations combined together some endeavor upward and others downward, they can either remain immovably suspended as in equilibrium or, alternately prevailing, move by leaps.

26. To this order belong "fatuous fires," which possess a small power of burning and move irregularly after the manner of fools. They are kindled near the earth, especially above cemeteries and the corpses of men hanging on gallows, and also around lakes and rivers which abound in rich mud. For the matter of this meteor is a fatty exhalation such as is drawn from corpses,

etc. These fatuous flames are easily moved with the air and therefore seem to flee from those who follow and to pursue those who flee. Akin is the "licking fire," which is sometimes kindled from the sweat or exhalation of animals of a very hot temperament, an inflammable but rare and subtle exhalation, whence an innocuous flame arises which sometimes clings to the heads of horses and men, like that which in Virgil was seen "to lick the hair of Iulus with flame and feed around his temples." Akin also are those flames which commonly rest upon the yards of ships toward the end of a storm. The pagans, when there was one, called it "Helen," and when two, "Castor" and "Pollux"; our sailors call them "St. Elmo's Fires," and believe that they foretell clear weather soon to come, because when they are permitted to rest upon the yards they sufficiently indicate that the winds are being calmed and the storm broken.

On the Origin of Rivers and Springs.

27. It is beyond doubt that some springs arise from rivers, whose water, secretly insinuated through sandy and spongy soil, wells up in nearby fields or valleys. Hence such springs increase and decrease together with the rivers themselves. Nevertheless, speaking generally, rivers derive from springs; consequently if the origin of springs is investigated, the origin of rivers will at the same time become known. Some authors report more than twenty opinions concerning this matter. Omitting them, I shall briefly state what seems more probable and is approved by most. Springs, therefore, arise from water existing in subterranean reservoirs, which comes partly from the sea, partly from rains and melted snows, partly from air transmuted into water.

28. The water of springs comes from the sea through hidden passages, veins, or channels already formed on the third day of the World and dispersed through the interior of the earth, when God commanded the waters above the earth to depart into the region of the sea, at the same time causing the dry body of the earth to be nourished as though from the breasts of the sea by drawing in and channeling a great quantity of waters into prepared receptacles, as into so many reservoirs, whence it could be distributed throughout all regions of the earth. Hence miners of stones and metals deep in the earth, where rainwater does not penetrate, frequently encounter streams, pools, and lakes. Hence some springs flow perpetually from rocks impermeable to rain. Hence also in certain springs a tide similar to that of the sea is observed. Hence finally there are many springs equally abundant at every season of the year and during long deficiencies of rain. It was certainly fitting that, just as the Author of nature prepared repositories

of fire, or treasures and receptacles of fire, in the interior of the earth, so also He should prepare many reservoirs of water, namely so that humidity and heat, which contribute especially to fertility, might render the earth, of itself dry and cold, fertile and productive of mixed bodies.

29. Two objections are commonly made. 1º that the water in most springs is not salt as in the sea. 2º that many springs arise in mountains higher than the sea, and cannot be nourished from the sea unless seawater, contrary to the laws of Hydrostatics, ascends to a greater height at its exit than at the beginning from which it flows. But 1º does not press, because seawater, filtered through long veins and fissures of earth, deposits its salt. 2º, even granting that those springs are nourished neither by rains or snows nor by vaporous air, can be solved in two ways. First, by saying that seawater reaching the roots of mountains is sucked up and drawn upward by the higher earth as by a sponge, celestial influences also concurring by a quasi-magnetic force because they find a medium suitably disposed there. Second, by asserting that water standing beneath the root of a mountain is attenuated by subterranean fires and resolved into vapors which, raised higher by their levity and again condensed by external cold, flow down upon the summit of the mountain as upon the head of an alembic, and thence nourish springs and rivers. It may be added that perhaps within the interior of mountains there are little tubes so disposed by the artifice of nature that they throw water violently upward, just as they are arranged by art in gardens.

30. That very many springs are nourished by rains and melted snows, indeed are wholly generated from them, cannot be doubted. For very many, when rain has ceased for several months and the snows have disappeared, either diminish or increase; and in tenacious clay soil, which rain penetrates with difficulty, springs are exceedingly rare, whereas they are frequent in light and sandy earth which rains easily penetrate. Nor is it an obstacle that it is commonly said that the earth is scarcely ever penetrated more than two feet by rain. First, because this is true of rich and clay soil, not of spongy, sandy, or rocky soil. Second, because beneath the outer crust of any soil rainwaters can descend along slopes and flow together into receptacles or cavities from which springs, streams, and rivers arise. Finally, it is sufficiently probable that vaporous air which enters the earth through various vents, when condensed by cold in caverns, is turned into water. For deep caves, quarries, and wells, although lacking a spring of water, often sweat and drip with frequent droplets, which cannot conveniently be attributed to other causes. From these drippings little springs and streams can readily be formed, and if several afterward meet they will make a river.

From what has thus far been said it is evident how truly it was said in Eccles. 1: "All rivers enter the sea; to the place whence they come, the rivers return, that they may flow again." For all flow into the sea and derive their origin from the sea, either through subterranean veins or by the emission of vapors, which afterward become snows and rains and, entering the earth together with air, are resolved into drippings.

On the Saltness of the Sea, and Also on Its Motion, Especially the Reciprocal Tide.

31. Since it is certain that seawater is salt, it is asked whence it derives its saltness. Many with Aristotle reduce the whole salinity of the sea to fumes or earthy exhalations mingled with the waters of the sea and scorched by the heat of the Sun, and hence wish it to arise that the sea is saltier beneath the Torrid Zone than elsewhere. Today, however, this cause is commonly judged insufficient, for water in ponds is not rendered salt although earthy exhalation scorched by the heat of the Sun is not lacking there. Therefore recourse is commonly had to true salt mingled with and dissolved in seawater, produced from the beginning of the World either in the water of the sea itself or in saline mountains existing upon the sea floor, such as exist in various parts of the earth, from which as from mines the water extracts and dissolves salt. Hence water at the bottom of the sea is saltier than at the surface. The reason why vapors raised from the sea are not afterward resolved into salt rain is that fixed salt does not rise with the vapors, as experience shows. Volatile salt, however, is the smaller portion in the sea, and although it rises and perhaps ascends even to the clouds and assists the formation of hail and snow, nevertheless, separated from the fixed salt and minutely dispersed in the region of the air, it is not perceived by taste. Hence also the reason is given why the sea is saltier beneath the Torrid Zone, namely because the great quantity of vapors raised thence by the heat of the Sun leaves its fixed salt in the remaining water. The lesser salinity in the northern Ocean can furthermore arise from more abundant snows and rains together with rivers, which are frequent and copious in that region.

32. Many motions of the sea can be distinguished, especially if account is taken of those peculiar to certain places. I shall now say something only concerning the three better known. The first is that uncertain and varied motion called a storm, namely a disturbed and vehement motion by which the waves of the sea are violently agitated upward and downward and are broken by mutual collision. This sometimes arises from winds rushing from opposite directions or striking the surface of the sea obliquely, especially if

they are contrary to one another; sometimes from exhalations excited from the sea floor by subterranean fire. Fishes perceive the agitation of these exhalations and, swimming to the surface, commonly foretell a storm threatening from the depths.

33. The second motion is that constant and perpetual one observed beneath the Torrid Zone, or between the Tropics, from east to west, whence those who sail beneath the Torrid Zone are carried much more rapidly from east to west than conversely. The same motion is also noted outside the Tropics. For Europeans who travel through the Mediterranean to Palestine spend more time going than returning. It is nevertheless smaller the nearer one approaches the Poles, both from the general law of a sphere's motion around its axis and because it is overcome by the stronger impetus of winds and rivers flowing into the sea from the polar regions. The cause of this motion is commonly believed to be the daily revolution of celestial bodies, especially of the Sun, which communicates some circular motion also to the easily movable bodies beneath it, such as air and water. Hence a perpetual wind also blows between the Tropics from east to west. There are nevertheless some to whom so great a communication or extension of celestial motion appears difficult, as indeed it is. Therefore they deny this motion of the sea and say that the aforesaid experience of sailors arises not from a motion of the water beneath the Torrid Zone but solely from the east wind which constantly blows there. They assign as the cause of this wind vapor successively raised from the seawater by the heat of the Sun, which, greatly rarefied and seeking a larger space, impels the air before it and follows the course of the Sun.

34. The third motion, likewise perpetual but more remarkable than the others and most difficult to explain, is called the "reciprocal tide," or also "the flow and reflux of the sea." I do not mean that motion by which both seawater and river water almost every moment gently approaches and recedes from the shore, but the more notable one by which the sea usually swells for about six hours and pours over the shores for several feet, and in some places for many miles, and then for the same number of hours subsides again into itself and leaves that space free. This motion is strongest in the Ocean; in the Mediterranean it is scarcely sensible, except in the Venetian gulf and certain other places; none is observed in the Caspian Sea or the Black Sea. Nor is it equal throughout the Ocean. In some places it is great, as in the Torrid Zone and near the British and German seas; in some moderate, as along the coasts of Spain; in some small, as from the Strait of Gibraltar to the Tropic of Cancer; in some almost none, as near Norway and

Greenland. Nor everywhere does it observe the same measure of time, although in most places it retains entirely the one we have stated.

35. Concerning the cause of this motion one thing alone is established: that it is caused by the motion of the Moon and its varied aspect toward the Sun, or at least that the motion of the Moon and that of the sea have a common cause. This is established 1º because the sea, by flowing twice and ebbing twice within about twenty-four hours, daily follows the motion of the Moon. While the Moon advances from its rising toward the summit of the Heaven, the sea flows toward the shores; it ebbs while the Moon declines from the summit toward the west. Then, while the Moon proceeds from our west toward the summit of the opposite Hemisphere, the sea flows again; it ebbs again while the Moon proceeds from that summit toward our east. 2º because the flow of the sea occurs each day about one hour later, just as the Moon also rises about one hour, or fifty minutes, later each day. 3º because the tide of the sea is much greater at new moons and full moons than at quadratures. These things certainly show that the marine tide depends upon the Moon, although it also seems to have some dependence upon the Sun, since it is greatest at the equinoxes. But what does the Moon do to the Ocean, that it should govern this motion according to such unshaken laws? Many give many answers and attack one another. Some have recourse to the magnetism of the Moon, or to qualities or effluvia by which the Ocean is moved as iron by magnetic force. But this magnetism both leaves the matter sufficiently obscure, as in the magnet itself, and ought also to be explained in rivers, or at least in the Caspian Sea. Others have recourse to the rarefaction and condensation of seawater alternately caused by the Moon. But seawater is not found to be lighter, and therefore not rarer, during the flow than during the ebb; nor is there any reason why a similar motion should not for the same reason be caused in any water; nor again why rarity should arise more from the Moon than from the Sun.

36. Descartes has recourse to the pressure of ether flowing between the Moon and the earth, which, being reduced to narrowness by the approach of the Moon and therefore agitated more rapidly, presses the Ocean and forces it to rise toward the shores. But this author supposes many things plainly false, for example that the earth moves according to the Copernican system and that the Moon at new and full moons is always at perigee, or nearest the earth. He also incurs various difficulties, for example that, contrary to experience, the swelling of the sea among us would be greater when the Moon is on the horizon than when on the meridian, since the water in the region beneath the Moon would be pressed more and would swell only at a distance of ninety degrees from that place. Fr. Fabri, conversely, has recourse

to lesser pressure of the air, and thinks the sea swells because it is pressed by a smaller mass of air, part of which the Moon takes to itself and pours into its own atmosphere when it approaches more closely. But he too supposes some things false or uncertain, for example the drawing or inclination of air toward the Moon and lesser gravity in our air while the sea swells. This diminution of gravity, however, conflicts with the experience of the barometer. See Fr. Jo. Bapt. de Benedictis, cit. tom. 3, lib. 3, q. 4, c. 5, where he distinctly proposes and attacks at length both opinions, that of Descartes and that of Fabri, especially the Cartesian. Others finally have recourse to the agitation of various spirits which are mingled with manifold sediments on the bottom of the Ocean in greater quantity than in the Mediterranean, Caspian, or elsewhere. These, strongly agitated by the approach of the Moon, cause the mass of waters also to be agitated and to swell, just as wine in great casks commonly ferments at new moons. This opinion is fully proposed and defended, among others, by Fr. Jo. Ulloa, *Philosophia naturalis* disp. 3, from n. 122 to 140. But this opinion also suffers grave difficulties, especially concerning the force of the Moon in agitating such spirits and concerning their character or nature.

On Earthquakes, Thermal Springs, and Mineral Waters.

37. We are not presently speaking of the motion of the whole Earth, concerning which above in chapter 1, but of the motion by which the earth sometimes in certain places or regions trembles and is shaken by a hidden force, at times so violently that it overthrows buildings, swallows cities, and causes other dreadful destructions. The cause of this earthquake is now asked. The common opinion says that it consists in nitro-sulfurous exhalations, a great quantity of which, flowing into some subterranean cavity and becoming rarefied by heat, while violently seeking an exit shakes the earth on every side until it finally breaks forth somewhere. Thus gunpowder enclosed in military mines, when ignited and seeking an exit, shakes the overlying earth, destroys fortifications, and commonly makes the entire neighboring region tremble far and wide. Hence earthquakes are more frequent where the earth is cavernous and abounds in much nitre, sulfur, and bitumen. Hence also shortly before an earthquake sulfurous exhalations issue from well water. Many, however, not without reason think that for an earthquake it is not sufficient that an exhalation be rarefied by heat unless it also catches fire. For an exhalation rarefying without ignition will produce a certain wind whose force does not seem so great as to cause an earthquake,

at least a great one. Many things would here have to be said concerning the various effects, modes, or species of earthquakes if the matter were treated worthily. But we have already exceeded the limits of a Synopsis.

38. Something remains nevertheless to be added concerning thermal springs and mineral waters. Thermal springs properly are Baths supplied by waters naturally hot; but generally by that name are understood all springs which burst hot from the earth, of which there are very many in Spain. The cause of heat in such springs, whatever some may say, seems to be nothing other than subterranean fire. For the constant and perpetual heat which many springs commonly retain at every season of the year cannot be derived from elsewhere. I understand, however, a fire not burning near the surface of the earth or in the subterranean womb itself of the springs, but much deeper, continually emitting through certain small veins or fissures of the earth as far as the womb or hollow from which the spring flows fiery spirits or rays, and often also many exhalations of sulfur, bitumen, vitriol, and other fossils, with which thermal waters for the most part issue impregnated. Because, according to the diversity of places, there is a greater or lesser quantity of fiery spirits, some springs become lukewarm, others hotter, others extremely hot and seized by vehement boiling. They likewise acquire various qualities according to the diverse nature and quantity of fossils which, resolved into exhalations by fire, are mingled with the waters and render them mineral.

39. But since there are other mineral springs whose water displays various qualities of gold, iron, vitriol, alum, sulfur, etc., and yet is cold or tempered like common water, it is asked whence these qualities arise. The common opinion is that water acquires them from subterranean veins of metals and other fossils through which it passes, namely by scraping off or dissolving many of their particles and carrying them with itself. But since it is again asked by what force water scrapes off or dissolves such particles, especially of metals, three things seem capable of being said. 1º that water in the womb of the spring receives and mixes with itself metallic spirits and exhalations of other fossils rarefied by the heat of deeper fire and emitted upward; and because this womb is often far distant from the external spring, the water in its course loses the heat although it still retains many spirits and exhalations mingled with it. 2º that by motion and humidity water dissolves encountered salts, sulfurs, bitumens, and various readily soluble minerals. Having been rendered stronger and sharper by these, if it afterward encounters metallic veins, it can more readily corrode them and carry their particles with itself. 3º that water scrapes off particles not from perfect metals already fully solidified but from the rudiments and quasi-

embryos of metals, of which a great quantity exists in metallic veins and whose nature is softer and more soluble. Treatment of mineral waters insofar as they are healthful or unhealthful belongs to physicians.

ON THE DOCTRINE OF THE SOUL

— OR PSYCHOLOGY —

The discipline concerning the soul, or the treatment *De anima*, which Aristotle delivered in three books, is rightly reckoned among the parts of natural philosophy, since it aims at a perfect knowledge of animate body, or corporeal living being, which is a species of natural body in general. It is nevertheless doubtful whether its immediate subject, or object of attribution, is animate body, or rather the soul in common. On this point the Conimbricenses may be consulted, Proem. in *De anima*. The matter is of little moment, for whichever is asserted, the present treatment will be occupied with discussing the same things or questions. Since, however, the human soul is principally discussed here, the object of "principality," as they say, may be considered to be the soul of man, or man himself. Hence the preeminence of this discipline above the other parts of natural philosophy, and hence its very great usefulness. For nothing beneath God and the Angels equals the nobility and perfection of man, for whose sake the structure of the world was created, and who is rightly called a "microcosm," that is, a little world, or compendium of the great world, wonderfully embracing in himself perfections dispersed elsewhere. Consequently, nothing is more worthy of the contemplation of a rational soul than the soul itself; nor is anything more useful, both that it may better know and more earnestly praise its Author, whose expressed image it bears, and that, conscious of its

own nobility and immortality, it may despise earthly things, desire eternal things, and aspire to be joined to the choirs of heavenly spirits.

DISPUTATION I.
WHAT LIFE AND SOUL ARE, AND HOW MANY KINDS THERE ARE.

CHAPTER I.
On the Quiddity, or Concept, of Life.

1. Since the soul is customarily defined through an order to life, it is necessary first to know what a living being is and what life is, lest the definition immediately suffer from obscurity. Life is sometimes taken for a living or alive thing, and sometimes for a vital operation, which is customarily called life in second act. Life in the first sense, or a living being, extends more broadly than soul and animate being, for God and an Angel have life but not a soul; hence only a corporeal living being is convertible with an animate being. It is self-evident that living things exist even among corporeal things, and that they are commonly distinguished from nonliving things by certain motions which they exercise from an intrinsic principle, such as nutrition, sensation, and reasoning; and they possess an organization suited to carrying out these operations, composed of varied shapes and a marvelous heterogeneity of accidents. Yet an exact concept according to the rules of philosophy, one which belongs to all and only living beings, especially if it is also to be adapted to God, is not easily assigned, both because of the great diversity among living beings themselves and because of a certain likeness of life found in some bodies which are known to be inanimate.

The Thomistic Definition Is Insufficient.

2. Thomists commonly prefer that a living being be defined as "that which moves itself," and life in second act as "a motion immanent in its principle." Here the name "motion" is taken broadly, insofar as it extends even to the act of what is perfect, to an instantaneous operation, indeed even to an unproduced and identically immanent operation, or one indistinct from the operator, such as the act by which God understands Himself. This extension of the words "to move" and "motion" is approved, or at least not disapproved, by St. Thomas I, q. 9, a. 1, ad 1, and q. 18, a. 3, in c., and ad 1. This definition or notion is continually favored by common usage and manner of speech, whereby a vital operation is everywhere called "a motion from an intrinsic principle and into an intrinsic principle," that is, proceeding from an intrinsic power of the subject in which it is received. St. Thomas also favors it more than once, especially at the cited q. 18, aa. 1, 2, and 3; nor is there scarcely any philosopher who disagrees, or who does not assert or suppose that this notion is proper to a living being, at least in the second mode of propriety, that is, so that it belongs to every living being though not to it alone. The question, however, is whether this notion is proper to living beings in the fourth mode, or whether it is a complete definition, so that nothing need be added by which a living being may philosophically be distinguished from every nonliving thing. The Thomists affirm this, but they are commonly opposed by our authors and the Scotists, on the ground that a heavy body, for example a stone, while tending toward the center, truly moves itself, as likewise does the substance of fire or water, or any other substance, when it produces its own properties in itself; yet it is not living.

3. The Thomists answer that motions of this kind do not arise from the intrinsic power of the movable thing, but from the generator. But this is said in vain. For although the motion of heavy bodies and the emanation of properties are said to be from the generator mediately and imputatively, they nevertheless proceed proximately and immediately from an intrinsic power of the thing, as we effectively showed in Physics, treat. 2, disp. 6, c. 4, by reason and by the authority of St. Thomas. They are therefore truly motions from an intrinsic principle and immanent in their principle, and consequently are comprehended under the given definition of life, although they are not vital. Certainly properties and the motions of heavy bodies are sometimes produced a long time after the generation of the thing, as when

water recovers lost coldness, or when a very old stone moves toward the center; but then they cannot be produced immediately by the generator, which perished long before. In particular, the matter seems evident regarding the motion of heavy bodies. For who doubts that downward motion immediately arises from the intrinsic gravity of the stone, which was given for no effect other than this? Nor does it matter that this motion is not immediately from the substance, for according to the Thomists this is common to every vital action, since they generally deny that substance is immediately operative. Nor likewise does it matter that the motion is imputed to the generator, if it is truly immediately from an intrinsic principle. For the motion of the heart is also attributed to the generator according to St. Thomas, *Opusculum de motu cordis*; yet according to not a few Thomists it is vital. The acts of intellect and will elicited by an Angel in the first instant are also truly vital, as no one doubts; and yet they are attributed to God creating, as the Thomists hold, for which reason they deny that an Angel can sin in the first instant, lest sin be imputed to God.

4. To these is added the motion of restitution proceeding from elastic force (see disp. 1, *De generatione*, n. 85 sqq.), which is truly immanent and from an intrinsic principle, as the Peripatetics do not doubt, although it belongs to inanimate things. The same occurs in the motion of rarefaction and condensation, by which wax, for example, is now extended to a greater place and now contracted to a smaller one. Nor is it an objection that the wax is determined to that motion by a quality received from an extrinsic source. For the intellect too is determined to the beatific vision by a light infused from an extrinsic source, which among the Thomists is the entire ground of acting; yet the Vision does not therefore cease to be vital. There is added also the motion of a magnet toward another magnet and even toward iron. Not only does a magnet draw iron to itself, but the magnet itself, when the iron is prevented from moving, hastens toward it. This motion, although it is not vital, is nevertheless immanent and from an intrinsic principle according to the Peripatetics. Indeed, even the motion of iron toward a magnet ought to be vital among the Thomists, since it occurs through a quality impressed by the magnet, no less consonant and adapted to the iron than an infused habit is with respect to the will for loving. There are also added those motions which the Peripatetics refer to fear of a vacuum, as when water rises through a tube after the air is drawn out; for the Thomistic definition of life belongs to these, since they arise from an intrinsic inclination of things for the common good of the universe. There are also many other motions of inanimate things which are customarily referred to sympathy and antipathy, or, what is the same, to innate love or hatred, by

reason of which they will arise from an intrinsic principle. Finally there are added the Thomistic modes of relation, which certainly are not from the generator, but result from their foundation and inhere in it according to the concept of "in," although they belong to all things and are considered vital by no one.

5. Nor must it be omitted that, according to several Thomists who hold that every transient action is received in the agent, every such action will be vital, for example the action by which fire burns wood; for it is an operation from an intrinsic principle and immanent, or remaining in its principle. They say that their definition of life is to be understood of an action which is not principally for the sake of a term to be produced in an extraneous patient. But, 1º, this limitation is not expressed by the definition, which is therefore defective as it stands, since it properly belongs to a nonvital transient action. 2º, although an action is for the sake of a term to be produced in another subject, it does not therefore cease to be vital if it possesses the other requisites of vitality. For when someone throws a stone with his hand, he moves the hand itself vitally, as the Thomists do not deny; yet that motion of the hand is principally for the sake of producing an impulse in the stone.

6. They say further that nothing is living unless it moves itself both elicitively and applicatively; but fire, although it moves itself elicitively, does not do so applicatively, because it is applied to burning purely from an extrinsic source. But against this, 1º, the definition does not exhibit this limitation either; hence, just as one would badly define man by "a biped animal," even if one later said that one was speaking of a biped sharing in reason, so too here. 2º, at least when one throws a stone, the immediate production of impulse in the stone, which is a transient action, will be vital, since it proceeds from the thrower both elicitively and applicatively. 3º, there are many vital acts in Angels and in us which applicatively proceed from an extrinsic source, namely the first cognition, the first love of good in common, the first intention of the end, and generally unpremeditated thoughts and affections concerning good, which God applicatively causes in us. If, with the College of St. Thomas at Alcalá, one says that it suffices for the character of a vital act that it either be from us applicatively, or at least stand as an application to other acts, then a new limitation is being added; and moreover one will be forced absurdly to admit that the previous alteration by which fire prepares wood for combustion is a vital action, since through it the fire applies itself to burning.

7. For these reasons the other authors think that something must be added in the definition of a living being beyond the power of moving itself in any fashion whatever. Yet not all determine in the same way what must be

added, but proceed into various explanations, which there is no leisure to review here. Fathers Arriaga, Oviedo, and Quirós report many; others add others, and each attacks the others. Nearly all agree, however, in excluding from the character of life, at least in created things, those motions or immanent actions which belong to the connatural state of the thing, such as the motions of heavy and light bodies and emanations of properties. Hence they agree that it belongs to the character of a living being that it be able to operate immanently beyond its connatural state; and likewise that it belongs to the character of vital motion that it presuppose the connatural state of its principle, or not pertain to acquiring that state, or at least that it proceed from its principle under that aspect under which that principle can actuate itself beyond its connatural state. By the name "connatural state" they understand that equipment of accidents which a thing by its own nature must have at the beginning of its existence and thereafter permanently, so that it cannot be deprived of it wholly or in part without violence.

8. This limitation or exclusion is according to the mind of the Angelic Doctor, I, q. 18, a. 1, ad 2, where, giving the reason why heavy and light bodies are not moved vitally, he says: "It must be said that it belongs to heavy and light bodies to be moved only insofar as they are outside the disposition of their nature, as when they are outside their proper place; for when they are in their proper and natural place, they rest. But plants and other living things are moved by vital motion insofar as they are in their natural disposition, and not in approaching it or receding from it." It is also according to the mind of the Excellent Doctor, Metaphysics, disp. 30, sect. 17, n. 7, where he says: "In the mode of life which creatures possess, therefore, two things may be considered: one, that while existing in their natural state they actuate themselves, either by in some way perfecting themselves, or by representing other things in themselves through cognition, or by tending toward them through perfect appetite; the other, that they effect these things through true causality and motion by which they move themselves, etc." Hence one may gather that whenever St. Thomas and Fr. Suárez elsewhere say absolutely that a living being is that which moves itself, they always tacitly understand this limitation: "beyond the connatural state."

9. The reason for the limitation is both that a motion pertaining to the connatural state is common to every substance, even a nonliving one, and therefore does not presuppose a vital principle unless it adds something not common; and that a motion of this kind, although physically from an intrinsic principle, is nevertheless, since it is a necessary consequence of the first generation and a result of the first existence, regarded as received from an extrinsic source together with existence itself, according to the saying,

"He who gives the form gives the things consequent upon the form." Hence, unless it possesses vitality on some other account, the thing does not posit this motion in its own name, but in the name of the generator; and this falls short of the concept of a living being, since, as St. Thomas says in the cited q. 18, a. 2, ad 2, "Works of life are those whose principles are in the agents, so that they bring themselves into such operations"; and as the same Holy Doctor says ibid., a. 3, in c., "Things are said to live insofar as they operate of themselves and not as though moved by others." From this one may infer that not without reason our authors, followed by Aversa, Mastrius, and others, commonly define a living being through an order to immanent operations beyond the connatural state of the operator.

A More Suitable Definition of a Living Being.

10. Therefore a created living being may suitably enough be defined thus: "That which, beyond its connatural state, can move itself through an operation immanent by reason of its species." This definition, to which nearly all those handed down by others can be reduced, belongs to every and only a living creature, as is gathered from what has been said and will become clearer from what remains to be said. But as to whether it also belongs to God with respect to the clause "beyond the connatural state," I do not sufficiently understand how, whatever some may explain. Therefore I think that a living being in common must be defined somewhat differently, though still sufficiently according to the mind of our authors, namely thus: "That which, without a natural and perpetual determination from an extrinsic source, requires that it actuate itself through an operation immanent by reason of its species." This definition contains that common notion discussed in n. 2. Yet it adds two things: 1º, that the living being does not actuate or move itself in just any fashion, but without a determination that is natural and perpetual; 2º, that the operation proper to a living being is not only truly immanent, that is, physically produced by it in itself, or at least not received through extrinsic efficiency alone, but also possesses immanence by reason of its species, so that it cannot be of the same species as a purely transient operation. In this way the definition belongs to every and only a living being.

11. It belongs, first, to God, insofar as He actuates Himself through all acts of understanding and loving, even necessary ones. For all these, although they neither really nor virtually flow or emanate, are nevertheless truly called "operations," both by reason of their intentional tendency toward an object and because they manifest an actual perfection which we

can explain only by way of operation. All are also by their very concept immanent with logical immanence, or immanence of identity; and through them God requires that He actuate Himself with a requirement identified with actuality itself. Finally, they are possessed by God without natural determination from an extrinsic source, as is self-evident. Hence the highest degree of life belongs to God. For, as St. Thomas says at the cited q. 18, a. 3, in c., "That whose very nature is its own understanding, and in which that which it naturally possesses is not determined by another, is that which attains the highest degree of life; and such is God." The same definition also most clearly comprehends the real processions in the Trinity, which are vital acts; nor are they lacking in immanence, according to the words of Christ, John 14: "I am in the Father, and the Father is in me." If perhaps one infers that God also lives through immensity, eternity, and the other attributes insofar as they are formally distinct from the essence, many grant the consequence, and the words of St. Thomas just quoted sufficiently favor it; yet it may be denied if one prefers, because immensity and the other attributes do not formally possess the concept of operation.

12. Next, the given definition belongs to all created living beings. For all require that they actuate themselves through some operation beyond the connatural state, and thus without a natural and perpetual determination from an extrinsic source. No such determination exists except for acquiring the connatural state, which of itself ought to be perpetual, and whose immediate determination is identified with the essence of the created thing received from an extrinsic source. For the other operations of vegetating, sensing, and understanding, however, the determination from an extrinsic source, at least for all of them, is either not "perpetual," that is, to be exercised at every instant of the thing's existence, or is not "natural," that is, naturally owed and required, for example if God were to determine a man to possess perpetually some definite cognition. Operations of this kind are also immanent by their specific concept. There is no doubt about sensation and intellection; regarding vegetative operation this will appear presently. Finally, the definition belongs only to living beings, because inanimate things either do not move themselves except for acquiring or recovering a connatural state, for which they receive with their essence a perpetual determination from an extrinsic source; or at least they do not move themselves through operations immanent by reason of their specific concept, but at most through local motion, which is not immanent in this way, as I shall presently explain.

Definition of Life in Second Act.

13. Hence there spontaneously follows the definition of life in second act, or by way of operation, namely: "An operation immanent by reason of its species and possessed under that aspect under which the operator requires that it actuate itself without natural and perpetual determination from an extrinsic source." By an "immanent" operation is understood one which is received, or remains, in the same principle by which it is elicited, or which a thing possesses from an intrinsic principle and into an intrinsic principle. An action can possess immanence in two ways, as the Excellent Doctor notes, Metaphysics, disp. 48, sect. 6, n. 10: either because it is received in the same principle by which, that is, in the same part of the *suppositum* by which it is elicited; and this is entirely proper and strict immanence; or because it arises from and is received in the same *suppositum* with respect to distinct parts, so that it is elicited by one and received by another; and this immanence is less proper. Indeed, by the Excellent Doctor ibid. it is called improper, which I understand when such immanence does not belong to the action according to species. The former mode of immanence is not always necessary for a vital operation, but the latter can suffice, as the same Excellent Doctor teaches, *De anima* I, c. 4, nn. 12-13, where he says that whoever denied this would be obstinate. Either immanence, however, must be founded not merely in the individual concept of the action but in the essential or specific concept, namely so that a vital operation cannot be of the same species as a transient action. Fathers Oviedo and Peinado expressly hold this, and Fathers Hurtado, Compton, and others seem to hold the same. The reason is that immanence, according to all or nearly all, belongs to the concept of life in second act, or of the vitality found in an operation; but vitality is a notable and very significant formality, and therefore is not purely individual but essential or specific, just as the character of intellection, sensation, and appetition, which are, as it were, differences of vitality in second act.

14. Besides immanence of this kind, the given definition requires that the operation be possessed "under that aspect under which, etc." This is required, 1º, so that the definition may comprehend certain vital acts by which the operator does not of itself require that it actuate itself, such as supernatural acts of understanding and willing in man. These are nevertheless vital, because they proceed immanently under that formal aspect under which the operator requires that it actuate itself without natural determination, etc., namely under the aspect of intellection and

volition. Hence one may infer that an inanimate thing, for example a stone, cannot be elevated to living in second act, although perhaps it could be elevated to producing in itself a vital act, for example a sensation; because such an operation, however immanent, would not be elicited under that formal aspect under which the stone requires that it actuate itself, etc. For the same reason the corporeal eye cannot be elevated to understanding or to hearing, even if it could be elevated to immanently producing intellection or audition, because neither vital operation would belong to it as such, since it would not be possessed under that aspect under which the corporeal eye requires, etc.

15. It is required, 2º, so that the definition may also comprehend other perhaps possible vital acts which, after the manner of a connatural property, would be determined from an extrinsic source as perpetually to be possessed; such as many think the first cognition of itself is in an Angel. At least there seems no contradiction in a cognitive substance to which some sensation or intellection is perpetually and connaturally due, although such an operation, despite belonging to the connatural state, would be vital; because it would proceed from the operator as sensitive or intellective, under which aspect the same operator would require that it actuate itself through other acts without similar determination. That a cognitive creature should be possible which could elicit no act immanently of itself except those belonging to the connatural state must be entirely denied, both because a truly sensitive or intellective substance has no reason to be limited to the perception of one object rather than others of the same order, and because, since the extension of an immanently active power beyond the connatural state is constantly observed in every created living being known thus far, we rightly gather that this belongs to the essential concept of a created living being as such.

16. It will be objected: only that operation is life in second act with reference to which a living being is defined; but a living being is defined only with reference to an operation required of itself and not determined from an extrinsic source after the manner of a property; therefore. There is also the fact that above, with the common opinion, we excluded from the character of life in created things operations pertaining to the connatural state. I answer: not only the operation mentioned in the definition of a living being is life in second act, because a living being ought not to be defined through an order to all vital operations, but through an order to those better known and those which show us more clearly the distinction between a living and a nonliving thing. Such are those which the living being elicits from an innate requirement and as more properly its own, that is, more in its own name

than in the name of the generator, as the Angelic Doctor expressly teaches II-II, q. 179, a. 1, in c., saying: "Every living being is shown to live by the operation most proper to itself, toward which it is most strongly inclined." Thus the rational is customarily defined through an order to reasoning, although rationality in second act also belongs to judgment and simple apprehension. But once a living being has been distinguished from a nonliving one through better-known operations, life in second act is fittingly extended to the other operations elicited by the same *suppositum* under the same formal aspect, as the cognition itself posited above and the same example of rationality indicate. Nor is it an objection that some perhaps belong to the connatural state, for this exception has already been indicated above, nn. 7 and 9; and it can be founded on the fact that a sensation elicited, for example, after the manner of a property, although due by the right of the generator, would nevertheless also be elicited by the living being itself as though in its own name, because it would likewise proceed from its power even if it were not due from another source, just as other acts of the same order proceed.

A Corollary Concerning Local Motion.

17. From what has been said it follows that local motion is not intrinsically and formally vital, or life in second act, because it is not immanent by its specific concept. For the progressive motion of a man, for example, first is not specifically immanent by reason of the term, namely location, since the same can be produced from an extrinsic source, for example by a demon possessing a human body. Next, neither is it so by reason of the action insofar as specified by the active principle, because although the action by which a man moves himself cannot be the same individually if proceeding from an extrinsic source, because of its modal connection with this individual principle, nevertheless it does not differ specifically from the transient action by which this man can be moved by another man; just as Peter's constitutive union does not differ specifically from Paul's union, although it is modally tied to the body and soul of Peter alone. Nor likewise does that motion differ specifically from one by which the same man can move some part of himself after the manner of an extrinsic agent, as if he moves his own foot by his hand, or his left hand by his right as he would the hand of another; in which event the motion of the foot or of the left hand is said by no one to be intrinsically vital or immanent by reason of its species. There is also the fact that two created *supposita* cannot simultaneously concur with equal primacy in an intrinsically vital

operation, as the authors note and as induction shows. But two men often concur simultaneously with equal primacy in the local motion of a living man, as when a sick man raises his arm or foot partly by his own strength and partly aided by the hands of a servant.

18. One may say: when a man moves himself, the action proceeds immediately from his own locomotive power; but when he is moved by another man, the action immediately proceeds from an impetus or impulse impressed by the other; therefore there is already a specific difference between the two actions by reason of the principle. I answer: an impulse is indeed impressed when someone is moved by another as by one throwing him, that is, so that the motion can continue for some time in the movable thing separated from the mover. But it is otherwise when someone is moved by another as by one carrying him, namely through a motion always dependent on the immediate contact of the mover, as occurs when someone raises the foot of another lying down, or moves it in such a way that, if he withdraws his hand, the motion immediately ceases. For then the motion can proceed immediately from the motive power without the intervention of the quality called impulse. This is clear, 1º, because this quality is posited in projected bodies so that motion which continues when separated from the thrower may not exist without any applied cause. If this reason were absent, no one would contend for such a quality, otherwise difficult enough to establish. 2º, because impulse, when it exists, does not depend for its conservation on the motive power, but remains apart for some time and continues the motion until it is destroyed by an obstacle or by the gravity of the movable thing, as we see in projected bodies. Therefore, when a motion is such that, once the immediate application of the motive power ceases, it immediately ceases, there is no reason to say that an impulse mediates between the motion and the power; or, if it must mediate even then, it will likewise mediate when someone moves his own members from an intrinsic principle.

19. Therefore local motion in sensitive living beings is vital only indicatively, presuppositively, and denominatively, insofar as it presupposes an act of sense and appetite by which it is determined and from which it receives its denomination. It is no different from the way in which, in man, walking, speaking, writing, and other external actions are called free and voluntary actions, receiving their denomination from the act of will by which they are commanded. Similarly, the motions of vegetative beings which contribute to nutrition, such as the motion of the heart, the pulse of the arteries, and the contraction and dilation of the pores for taking food inward: all these motions, I say, whether in man and brute animal or in a

plant, are vital only presuppositively and dispositively, insofar as they arise from the soul preparing, disposing, and applying matter through them to the final act of nutrition. Nor is it an objection that they arise from the soul as such. For it belongs to the soul as such not only formally to live in second act, but also to provide in advance certain things necessary for living in this way. Thus from fire as such proceeds the alteration by which wood is disposed to ignition. Thus also from the soul as such arise the cooking and digestion of food in the stomach and the formation of chyle; yet these actions, as transient, are not formally vital.

20. By this doctrine we forestall troublesome objections which otherwise could scarcely be solved. For if local motion in living beings is called intrinsically and formally vital, the same will not easily be denied of many motions of inanimate things discussed in n. 4, since all these can only with great difficulty be reduced either to the connatural state or to an efficient cause wholly extrinsic. Other motions may also be added: for example, the motions by which mixed acidic and alkaline salts and diverse liquids are agitated, as chemists everywhere observe; also the motion by which quicklime boils when water is poured upon it; and that varied motion seen in quicksilver, which is vainly attributed partly to innate weight, partly to a love of roundness or conjunction of parts, as though now one and now the other cause alternately prevailed, for this explanation would prove a similar motion in every liquid, contrary to experience. Finally there belong here nonvital motions observed in certain plants, as in the heliotrope, whose flower by its turning in some way follows the course of the sun; in the plant called "sensitive," because it shrinks from a person's touch; likewise in another marvelous plant growing on the Isthmus of Panama, called "bejuco," otherwise "bien te veo." For although it otherwise rests contracted within itself, if a man approaches closely it suddenly attacks him and strikes him with the very sharp spike it bears at its extremity, yet restrains itself at the human voice, for example at the Spanish words "I see you well," whence it took its popular name. Certainly local motion cannot be called vital according to the common doctrine unless it either belongs to the work of nutrition or presupposes sensitive power; but neither is possessed by the motions just mentioned, although they are from an intrinsic principle and immanent.

21. For this reason Fathers Hurtado, Arriaga, Alfonso, Oviedo, and Peinado hold this opinion concerning local motion, and others agree with them, especially more recent authors. Several others dissent, alleging in their favor the mind of the ancients, particularly Aristotle, St. Augustine, St. Thomas, and Fr. Suárez. But the words of these wise men may easily be

interpreted of extrinsic, presuppositive, and indicative vitality, although they call the local motion of animals the first sign or indication of life, call it absolutely vital, and number it among the species of vital motions. For orderly speech too is customarily the first indication of rationality or the use of reason; and both it and many other external actions are customarily called absolutely voluntary and numbered among voluntary actions, though they are not intrinsically and formally but indicatively and presuppositively rational and voluntary. Finally I conclude that local motions which are otherwise known neither to be ordered to nutrition nor to presuppose sensitive or rational life, which can be known both from their end and from the absence of organization in the subject, can in no way be called vital, namely neither formally nor indicatively, however much they may be from an intrinsic principle and into an intrinsic principle, and however much the Thomistic definition of life may belong to them; and for this reason we attacked that definition on this ground.

22. On the same ground the Atomists must be rejected, who define a living being and life no differently from the Thomists, and otherwise acknowledge no motion in merely corporeal things except local motion. Indeed most of them, with the Cartesians, deny that even this motion can arise from the intrinsic power of any atom or body. Given this doctrine, no body will be truly living except man insofar as using reason, since every motion of bodies will be purely from an extrinsic source. Or, if the motion of internal spirits or subtle corpuscles, such as the Atomists assign to living beings, is sufficient for life, all the bodies of the world will truly live, especially fiery and liquid bodies, whose nature they say consists in the perpetual and varied motion of insensible particles. Indeed wheel-driven clocks and other artificial automata will possess true life, which is absurd. See Preliminary Dissertation to Physics, n. 30, and above n. 21.

Whether the Concept of a Living Being in Common Is Univocal.

23. One may ask here whether the assigned definition or concept of a living being or of life belongs univocally to every living being. I say, 1º: it belongs univocally to every created living being, because it prescinds from the differences which diversify vitality in an Angel, man, brute animal, and plant; and otherwise it is properly verified of each, as will be clear to anyone applying it, provided he keeps before his eyes what will presently be said concerning nutrition. It is objected: a created substance is possible which identifies intellection with itself; through this it would certainly live, since

every act of understanding is life, even if it is identified with the understanding substance, as is clear in God. But the definition handed down would not belong to such a substance. I answer: such a substance is entirely impossible, even on this very ground; for it would simultaneously be and not be its own life as though in second act. It would be, because it would be a true substantial intellection; it would not be, because nothing is more alien to a vital act and more destructive of the concept of immanence than to be by its very nature wholly from an extrinsic source both efficiently and determinatively. Yet such an intellection would be from an extrinsic source. From this the disparity with Divine intellection is evident.

24. I say, 2º: the same concept also seems univocal of created and uncreated living being, not only insofar as the latter really produces *ad intra* in the Trinity, but even insofar as it absolutely understands and wills through acts that are necessary as well, and although in God there is no first act of understanding from which actual intellection virtually proceeds, but the essence of God formally consists in the intellection itself. Only the names "operation" and "immanence" can create an obstacle, since they seem properly to signify real action and reception or union. But this will not be an obstacle provided "immanent operation" is taken for a tendency toward a term intrinsically possessed without adequate efficiency from an extrinsic source, prescinding from whether it is possessed by identity or by real action and union, and also from whether it physically produces the term or intentionally attains it. If, however, a prescission of this kind is not pleasing, I shall readily grant that the concept of a living being is analogical of God and creature, yet so that God is the principal analogate, for the reason of St. Thomas given above in n. 11. For to God it most properly belongs to actuate Himself without determination from an extrinsic source, and His actuality is an immanent operation in an eminent mode.

CHAPTER II.

Various Objections Are Solved. How Many Kinds of Living Being and Life There Are.

25. Against the definitions given of living being and life, besides what we have already solved or anticipated, it is objected, 1º: there are many vital acts whose production is determined from an extrinsic source, namely all those which proceed neither immediately nor mediately from free will. Therefore it is not contrary to the concept of a living being that it be determined to operate from an extrinsic source. What difference does it make whether the determination is or is not natural and perpetual? I answer: only a

determination from an extrinsic source which is natural and perpetual, or received from the first instant and for every instant, and which in addition comprehends every operation of that *suppositum* immanent by reason of its species, is opposed to the common concept of a living being. Why such a determination is more opposed than another which indeed proceeds from an extrinsic source but lacks those conditions is a reason to be sought from induction, by which alone the quiddities and definitions of things are proved. All nonliving things possess such a determination. On the contrary, we know no living being which does not lack it. For a plant is not naturally determined from an extrinsic source to nourish itself at every instant, even the first, much less to vegetate in every mode in which it can, for example by producing leaves and flowers; nor is a cognitive thing determined to know and desire at every instant to the extent of its capacity. From this arises that variety of immanent operations at different times which shines forth in living things above inanimate things. From this also arises the fact that every living being, even one not free, obtains for itself as if by its own effort a proximate determination for many operations. For a cognitive being acquires species by which it is determined to know; and a vegetative being attracts, prepares, and applies the matter of food by which it is determined to nourish itself. Hence it now operates of itself and brings itself into operation, as St. Thomas required above in n. 9.

26. It is objected, 2°: nutrition is a vital act, yet it is not immanent by its specific concept, for the same union, or part of the soul in a plant, which is acquired by nutrition could have been effected from an extrinsic source, if, for example, God produced a man or plant in a perfect state, as at the beginning of the world, or if the matter which serves for nutrition had been primordial. It is confirmed: neither man nor plant is in a connatural state until it has a perfect bulk or stature, or at least one suitable for man to use reason and for a plant to bear fruit. This is so both because that bulk is naturally due, and because that is called a connatural state by which a thing is rendered apt for exercising its proper operations, as is clear in water or fire; but the proper operation with respect to man is the use of reason, and with respect to a plant the bearing of fruit. Therefore nutrition, by which this bulk is acquired, belongs to the connatural state, although it is truly vital.

27. I answer: in the work of nutrition only the action by which food is converted into the substance of the thing nourished is formally vital. For the preceding actions, such as the cooking of food, the formation of chyle, the attraction and distribution of nutritive juice, are vital only indicatively, since they are either transient or consist in local motion. But that converting

action is immanent by reason of its species, not indeed by reason of the term absolutely taken, since this can be produced from an extrinsic source, but by reason of the term as immediately producible by a principle of such a species. For a new part of form, or a new union, both informative and continuative, cannot immediately be produced transiently by a principle of the same species as the living being that is nourished. If it is produced by God alone, the diversity is clear. But if by a generator, the power of the seed must intervene, which does not concur in nutrition and is specifically distinguished from the nutritive power. Therefore, since an action is also specified by its principle, as we showed in Physics, treat. 3, no transient action is possible from which the nutritive action does not differ specifically; and the latter therefore becomes immanent by its specific concept. One may say: if two plants of the same species penetrated one another, one could through its nutritive power convert food into the substance of the other. This is denied, because no plant has the power of vivifying extraneous matter, that is, matter not continuatively united to itself, except through generation, which is accomplished by the power of seed. From this one may gather that nutritive action differs specifically from generative action, whatever others may say.

28. The confirmation likewise raises a difficulty concerning the name "connatural state," from which our definition of a living being in common abstains and therefore cannot be attacked on that ground. Nevertheless, in defense of the common definition for a created living being given in n. 10, I deny the antecedent, because in common usage only that state is called connatural which must perpetually accompany a thing, so that the thing cannot at any instant be deprived of it without violence or miracle. Who would say that a human fetus suffers violence until it can use reason, or that a plant does so until it bears fruit? Nor do the proofs added create an obstacle. For that bulk is indeed due, but not for every time. Aptitude for proper operations, however, does not belong to the connatural state unless by the nature of the thing it must be uniform for every instant, as occurs in water and fire and does not occur in corporeal living beings, which at different ages require different operations and aptitudes. If one infers from this: therefore even that disposition of the body which the fetus has at its first animation will not belong to the connatural state, since it changes greatly through the course of age. I deny the consequence, if the discussion concerns only that particle of the heart or brain which is first animated; for throughout the course of life it does not change with respect to disposition, just as according to the very probable opinion discussed in Physics, treat. 1, disp. 4, c. 5, from n. 16, it does not change with respect to matter. But if one

embraces the other opinion, discussed ibid., n. 20, it may be said that the matter of the natural minimum with its disposition perpetually remains at least equivalently, because if it is lost, another similarly disposed matter acquired through nutrition must necessarily be substituted.

29. But from this it is objected, 3º: nutrition of itself tends to conserve and repair the connatural state, which would shortly perish together with the living being itself unless nutrition repaired the losses of matter dissolved by continual transpiration, as well as the losses of the due temperament which is often injured by illness or another cause. Therefore it is no more a vital operation than the action by which water recovers lost coldness so as to restore itself to its connatural state. I answer: if primordial matter, which alone with its temperament belongs in strictness to the connatural state, since it alone suffices for the living being to exist connaturally in the first instant, is incapable of being lost during life, as the opinion just cited holds, then it suffers no loss either in itself or in its temperament which is repaired by nutrition. For when its temperament is injured, death must necessarily follow. Nor does nutrition conserve that matter except by removing an impediment, or by increasing the bulk, by whose barrier contrary agents are more effectively kept away.

30. But if primordial matter can be lost, not even then does nutrition immediately and formally tend to repair the connatural state, but only mediately and materially, namely by acquiring matter or substance from which reparation is made by another cause. For nutrition, since it is a species of augmentation, immediately and formally tends only to increase the preexisting substance, as is clear in the first instant in which an animated fetus begins to be nourished. For then the whole primordial matter preexists, nor has any loss yet occurred which must be repaired by nutrition. Later, when previously possessed matter is dissolved, substance acquired through nutrition is indeed substituted in its place. But this substitution, which consists in the retention of new substance together with the loss of the old, is not nutrition nor a vital action, because it occurs only after the instant of nutrition; once that instant has passed, the term of nutrition is now conserved by God alone, so that the nutritive power may remain free for new acquisitions. Moreover, the repair of an injured temperament in previously possessed matter is not made by food insofar as nourishing, but insofar as it has the character of medicine or drug, as we noted in disp. 1, *De generatione*, n. 54. The extension of organization and temperament to new matter is not vital, because it precedes substantial nutrition and is a transient action by which the living being prepares the matter of food before continuatively uniting it to itself. Or, if these or other accidents are

efficiently rooted by a new part of substance as its properties, they are not the immediate effects of nutrition, but of emanation, which presupposes a perpetual determination of that same new part as though from an extrinsic source, namely after the manner of that received from an extrinsic source in the first generation of the living being.

31. It is objected, 4º: the accretion of fire is not a vital action, although it is beyond the connatural state and possesses immanence no less than the nutrition of a plant. I answer: the accretion by which fire produces in continuous matter an increase of its own form and continuatively unites it to itself is not a vital action because it is not immanent by reason of its specific concept, not only insofar as it produces a new part of the fiery form, which would likewise be produced by the same power in merely contiguous matter, but also insofar as it is terminated at the continuative union of that new form with the preceding one. For such an action does not differ specifically from the transient action by which the same union could be produced by another fire. For that very union which fire A produces in itself could have been transiently produced by fire B through an entirely similar power, if fire A with this same increase were first produced by fire B. Hence it must be denied that accretion is equally immanent with nutrition.

32. It is objected, 5º: a man or Angel can understand, and therefore live, through an intellection produced and infused by God alone. At least a tree lives through the grafting of a branch, which is from an extrinsic source both efficiently and determinatively. I answer: the possibility of understanding through an intellection infused from an extrinsic source must be entirely denied, at least unless the intellect unites it to itself from an intrinsic principle, so that it is in some way verified that the intellection is immanently possessed. Otherwise the notion of life received by everyone must be overturned. But we shall discuss this matter more fully when treating of the constitutive element of intellection. Nor does a tree live through the placing of a branch upon it from an extrinsic source, but through the production of the union by which it continues the branch with itself. This production is from an intrinsic principle and immanent by reason of its species, for the same reason we gave for nutrition in n. 27. Understand the same of the action by which a newly severed part of a nose, when applied again, is customarily reunited. Finally, note that the production of duration, if duration is a mode distinct from the enduring thing, is not a vital action even in living beings, not indeed through lack of immanence, but because, although divisible, it is nevertheless always one continuous action belonging to the connatural state and presupposing a perpetual determination received from an extrinsic source with the first existence of the thing.

Various Genera of Living Beings and
Vital Actions Are Indicated.

33. Life in common is divided, 1º, into physical and intentional. Physical life is said to be that which is exercised through real production; intentional life that which is exercised through cognition or appetition of some object. Plants possess purely physical life. God possesses purely intentional life with respect to absolute acts physically unproduced. Angel, man, and brute animal possess physical and intentional life together, for they perceive and desire objects through acts which they physically produce. Whether intentional life can ever exist in created things without physical life will be discussed elsewhere. It is divided, 2º, into life in first act and life in second act, or, what comes to the same thing, into life by way of a principle capable of eliciting a vital operation and life by way of an actual operation. Life by way of principle, at least substantial principle, is called a "living being," both substantively by reason of a vitally active power or quiddity, which suffices for a man, for example, to be called simply living or alive even if he is actually doing nothing, and adjectivally by reason of the operation while he elicits it. But life by way of operation is a living being "as that which" only in God, because of its indistinction from the Divine substance and essence. Whether in God there is a first act of understanding virtually or rationally distinct from actual intellection, or whether the essence of God consists in the intellection itself, theologians will dispute. That in created things the first act of living, or vital principle, is really distinguished from the operation is certain and demonstrable from the separability of the two. But the doctrine of the Corpuscularians, especially the Maignanists, which is badly compatible with this distinction, was sufficiently refuted in the Preliminary Dissertation to Physics, n. 33.

34. The vital principle, or living being, in created things is subdivided into intellective, sensitive, and vegetative. It could indeed be divided more immediately into vegetative and cognitive, under the latter of which sensitive and intellective would be comprehended, but the threefold division is more customary. The intellective, therefore, is that which moves itself through immaterial cognition; the sensitive, that which does so through material perception of an object; the vegetative, that which does so through nutrition. Intellective life belongs to man and Angel, although in man it is called rational; sensitive life belongs to man and brute animal; vegetative life to man, brute animal, and plant. These members are distinguished from one

another at least formally, though not always and everywhere really. For although the intellective is separated from the others in an Angel and the vegetative in a plant, nevertheless all three are really identified in man, and two in a brute animal. Moreover, this division is adequate, because no created living being exists which is not comprehended under these genera. Nor is it necessary to add an appetitive living being as a new genus. For nothing is appetitive by an elicited appetite, which alone is vital, unless it is also cognitive through sense or intellect, and conversely; and indeed in such a way that the appetitive power really or formally presupposes the cognitive power and is rooted in it as a property. This does not occur in the vegetative and sensitive powers even when they are really identified. Nor is it an objection that appetition is a genus of vital operation diverse from cognition. For genera of operations are multiplied according to the diversity of the formal aspect "under which"; but genera of living beings only from separability, at least nonmutual, or from the fact that they are not coordinated with one another as essence and property.

35. But it will be objected: the locomotive power is commonly numbered among the genera or grades of living beings, which are therefore said to be four; hence that threefold division is not adequate. I answer: the locomotive, that is, progressive, is numbered among the grades of living beings not because it is a genus of living being diverse from the whole sensitive genus, but only for the sake of greater clarity. For since ordinary people customarily recognize living beings endowed with sense from progressive motion, namely walking, flying, or swimming, philosophers chose in the very enumeration of grades to indicate that there are also certain sensitive things which scarcely possess motion, or at least do not progress, although they contract and dilate themselves to some extent, such as oysters, shellfish, and polyps. Therefore they divide the sensitive grade into two, one of which under the name "locomotive" comprehends animals recognized from local motion, not as from life but as from a sign of life; while the other comprehends immobile animals under the name "sensitive," with the restriction "without motion" tacitly understood. The number of grades could indeed be increased by other divisions for similar reasons, but this one seemed more fitting than the others.

36. The vital principle is also customarily subdivided into substantial and accidental. The substantial principle in corporeal living beings is the soul; in an Angel, his substance itself. The accidental principle is an accident required of itself by the substance so that together with the substance it may influence vital acts under the title of vitality. This is gathered from the common opinion, which for this reason attributes the character of an

accidental vital principle only to the intellective, volitional, etc., powers, if they are distinguished from the substance of the soul, but not to species and habits; because a species does not influence cognition under the title of vitality but of representation, while a habit, whether acquired or infused, is not required of itself by the substance, and an infused habit influences an act only under the title of supernaturalness. There are nevertheless some who call habits and species vital principles as well; and conversely some who hold that no accident is a vital principle. In this matter the disagreement is almost merely verbal.

37. It seems certain that "to live" properly belongs only to substance, because the name "life," insofar as it signifies a living or alive principle, "was imposed," says St. Thomas I, q. 18, a. 2, in c., "to signify a substance to which it belongs according to its nature to move itself. Hence," adds the Holy Doctor, "living is not an accidental predicate but a substantial one." It is also certain that an accident can be called a vital principle "as that by which," if this denotes only that it is an accidental power by which a substance is aided in eliciting vital acts. And in this sense not only powers, but also habits and species, can be called vital principles. Hence only the question seems to remain whether power rather than habit and species deserves the name of vital principle "as that by which" under a special title, namely because it is required of itself by the substance and at the same time influences the act formally as vital. On this question there is no reason to depart from the common opinion. The reason, however, why an accidental power is not properly living is that it does not properly operate immanently. For although it coeffects a vital act, it does not receive that act in itself, as we shall say in its place; and therefore it is not said to move itself, but to aid the soul in moving itself. One may say: for operating immanently after the manner of a living being, it suffices that the active power and the power receptive of the operation belong to the same *suppositum*, although they are really distinguished from one another, as was noted above in n. 13. I distinguish: if they belong to it constitutively, or as parts of the same *suppositum*, I grant; if both or either belong to the same *suppositum* adjectivally, or as a superadded accident, I deny. Otherwise light producing heat in the air or crystal in which it inheres would operate immanently after the manner of a living being and would properly be said to move itself. The same would occur with impulse producing motion in the stone in which it inheres, and with primary qualities producing secondary ones in their own subject.

38. Now the genera of vital actions can be numbered as five. The first contains those which belong to the line of understanding, or immaterial cognition. The second contains those belonging to the line of willing, or

immaterial appetition. The third contains those belonging to the line of sensing, or material cognition. The fourth contains those belonging to the line of material appetition. The fifth contains those belonging to the line of vegetative activity. The first two are proper to the intellective living being; the third and fourth to the sensitive; the last to the vegetative. Besides these genera there seems to be no action properly and formally vital. For the production of powers, especially intellective and volitional, by the soul or Angel is commonly considered nonvital, although it is immanent in species, because it belongs to the connatural state and does not proceed under that aspect under which the living being can actuate itself beyond that state. If, however, with some authors, one wishes to hold that it is vital, which seems sufficiently probable, it can be reduced to the line of intellection or volition, whose formal character it virtually participates.

39. The production of species by the agent intellect is also commonly called nonvital, because through it the intellect does not operate so much in its own name as in the name of the object. Yet if it immediately proceeds from the soul and inheres in the soul, nothing prevents it from being called vital and reduced to the line of understanding. Think the same of the production of a habit, if perhaps it is immediately from the soul and in the soul. But if a habit is produced by acts alone, as is commonly supposed, its production will not be vital through lack of immanence, both with respect to the soul, from which it does not arise, and with respect to the acts, in which it does not inhere. The generative action of a living being, if taken for the formation of seed, is vital, since it is a certain species of nutrition, as is also the formation of blood. For although blood and seed in animals are not animated, they are nevertheless truly parts of the living body, as we shall say below; and therefore their production or augmentation through the power of the soul has an active principle and a passive act within the same *suppositum*. But if generative action is taken for the separation of seed, or for its concurrence in the formation of the fetus, it is a transient action and therefore nonvital. Regarding the other actions there seems no reason for doubt, except local motion, of which enough has been said above.

CHAPTER III.

What the Soul Is, and How Many Kinds There Are.

40. Concerning the nature or quiddity of the soul there were very many errors among the ancient philosophers, to recount and refute which Aristotle devoted the whole of Book I of *De anima*. In Book II, chapter 1, however, he delivers a doctrine from which this celebrated definition of the

soul is drawn: "The first act of a physical organic body having life in potency." By the first four words it is signified that the soul is a substantial form, to which alone it belongs to be the first act of a physical or natural body, as is abundantly clear from what was said in treat. 1 of Physics. The particle "organic" denotes that the physical body of which the soul is the act must be furnished with dissimilar parts, namely parts disposed with great heterogeneity of accidents and varied shape, with veins, fibers, and other channels necessary for the functions of life. This is further explained by the addition "having life in potency." It is nevertheless doubtful in what sense "organic body" is taken here; or, as Aristotle says, "a body whose parts are instruments," namely for operating vitally. The Scotists hold that by this name is signified prime matter with the form of corporeity. Their foundation was proposed and solved in Physics, treat. 1, disp. 5, c. 1. Among the other philosophers there are two acceptations of organic body, each sufficiently probable, as the Excellent Doctor shows, *De anima* I, c. 2.

41. For, first, organic body can be taken for prime matter together with accidental organization. Hence the sense of the definition will be: "A first act informing matter and of itself requiring that matter to be organized"; or, "a first act due to organized matter and ultimately disposed to be vivified." For this ultimate or proximate disposition is required by the words "having life in potency," namely substantial life, which is the soul itself. In this sense the definition excludes the form of an embryo or corpse, which, although in organized matter, does not of itself require organization, or at least is not due to matter as proximately apt to be vivified. By the same reason every other form which might be divinely infused into matter proximately animable in place of the soul also remains excluded. This acceptation seems to accord with Aristotle's mind, for in the cited chapter he clearly teaches that the body placed in the definition of the soul stands as subject and matter, and that from it and the soul one thing is made, which is verified only of an incomplete body, or of prime matter organized with a priority of nature. Nor is it a defect that accidental organization is placed in the definition of the soul while placed obliquely, as a necessary condition on the part of the subject, or as a connotation or term of requirement, just as sensation is in this definition of animal: "A principle of sensing." Nor likewise is it a defect that the soul is defined through an order to a subject disposed to substantial life, that is, to the soul itself, because the names "life" and "soul" are not synonymous nor equally obscure, especially if the notion or concept of living being and life has been premised.

42. Second, organic body can be taken for the whole composite, or for the body substantially completed through the soul itself. In this sense the

soul is the act of the body, not as informing but as constituting and specifying; and the sense of the definition will be: "The first act by which a radically organic body is constituted, and therefore a body having life in potency," namely life in second act, or vital operation. Therefore the soul is defined through an order to its formal effect, which is to constitute "a living body," or "a living being in first act," or, what is equivalent, "a being capable of operating vitally," which is a clearer expression than "animate" or "having a soul." This acceptation is more according to Aristotle's mind, who at the cited place, text 8, says that the soul is the account, substance, and quiddity of such a body, and that this body has in itself an implanted principle of motion and rest; and at text 10 says: "That which is potentially living is not that which casts off the soul and lacks it, but that which possesses it." It is also the view of the Angelic Doctor, who at I, q. 76, a. 4, ad 1, explaining Aristotle's definition of the soul, says: "It is manifest that in that of which the soul is called the act, the soul itself is also included, according to that manner of speaking by which heat is the act of what is hot and light is the act of what is luminous; not because there is something luminous apart from light, but because it is luminous through light."

43. Consequently it must be said that by the word "organic" is signified not so much accidental organization as substantial or radical organization, consisting in the soul itself insofar as united to matter, by which very fact it renders due to that matter the proper variety of accidents and organs for exercising the functions of life. For in this sense the organic body is the formal effect of the soul. Hence St. Thomas at the cited place says: "Through the soul the body both is a body, is organic, and has life in potency." Thus, if the soul were divinely to inform matter not accidentally organized, it would still be the act of an organic body, because it would constitute a body to which that organization was due. Similarly, "having life in potency" must be understood of substantial or radical potency, which consists in the soul alone and is bestowed by the soul upon the composite in the genus of formal cause. If one asks whether this final part of the definition adds anything beyond the word "organic," the common answer is that it adds only greater explanation. For otherwise it seems formally the same thing to be an organic body in the sense just explained and to be a body having life in potency, because by reason of the substantial potency by which it can operate vitally it renders due to itself the organs which serve the functions of life. How the rational soul, although spiritual, gives man the grade of body and roots organic accidents was sufficiently explained in Physics, treat. 1, disp. 5, c. 1.

44. Aristotle gave another definition of the soul in the cited book, chapter 2, saying that the soul is "the principle by which we live, sense, move

locally, and understand." Here the verb "we live" is taken for nutrition, namely by attributing, as is often otherwise done, the generic name to the lowest species. The phrase "we move locally" is placed for the special sensation which causes progressive motion and is not common to every sensitive being, according to what was said in n. 35; or rather it is placed as a sign of elicited appetite, by which the local motion of animals is determined, and in this way signifies a new genus of vital operation. At first sight this definition belongs only to the rational soul. Yet Aristotle and his interpreters commonly refer it to the soul in common, not so that every soul is a principle of all the operations enumerated in the definition, but so that those four genera of operations circumscribe the entire extension of vital operation generally taken, whose principle is the soul as such. Hence the sense will be that the soul is the principle of vital operation found in any of these functions: to be nourished, to sense, to desire, and to understand. It is, I say, an active principle "by which," and a first principle, or one after the manner of the first root or nature constituting the composite; for thus Aristotle explains it and all understand it. Aristotle's interpreters dispute whether this is a proper and quiddity-defining definition, and whether through it the preceding definition just explained is rightly demonstrated. These and other minor doubts concerning both definitions may be seen in Fr. Suárez, *De anima* I, cc. 1-3. It is sufficient for us to note that the former definition, "the first act of a body, etc.," is commonly received throughout the whole School not only as belonging univocally to every soul and distinguishing it from everything that is not soul, but also as essential or quiddity-defining, since it expresses an order to the proper subject of the soul or to its primary formal effect, which order constitutes the metaphysical essence of the soul.

45. As regards the division of the soul in common, the soul can immediately be divided into vegetative and cognitive, and the cognitive then subdivided into sensitive and intellective, or, what is the same, into materially cognitive and immaterially cognitive. But for the sake of clearer doctrine the soul is commonly divided into vegetative, sensitive, and intellective or rational. The first of these constitutes an organic body capable of being nourished; the second an organic body capable of sensing, or materially cognizing; the third an organic body capable of understanding. Or, according to the latter definition of soul, the first is the principle of nutrition, the second of sensation, the third of intellection. This division, if the first two members are taken precisely as they stand, with no exclusion tacitly understood, is not a real division, or a division into really distinct members, since all are really identified in the soul of man and the first two in

the soul of a brute animal, as I shall presently say. It is nevertheless into members rationally distinct by a distinction founded in the great diversity of operations to which they have an order. Therefore, in order that the division be real, the soul must be divided into "purely vegetative," which is proper to plants; "vegetative and sensitive only," which belongs to brute animals; and "vegetative, sensitive, and rational together," which belongs only to man. For thus by the adverbs "purely," "only," and "together" is expressed a positive exclusion of real identity which those three grades of souls possess with one another by the differences of plant, brute-animal, and human.

46. How these same grades are compared with one another when they are prescinded from the exclusive differences, and how one is contracted through another, is explained by the Excellent Doctor, *De anima* I, c. 6. In the preceding chapter, concerning their separability, he gives two rules from Aristotle. 1º, the more imperfect grade can exist without the more perfect, namely the vegetative without the sensitive, and the sensitive without the rational. 2º, the more perfect grade is never found without the less perfect, namely the rational without the sensitive, nor the sensitive without the vegetative. Moreover, it must be noted that this division is adequate, because no soul exists which is not comprehended under one of these three grades or genera. For a purely locomotive soul, which some imagine, remains sufficiently excluded by what was said in chapters 1 and 2. We also explained in n. 35 in what sense the grades of living beings are customarily numbered as four; nor do we deny that in the same sense an equal number of grades of souls can be numbered, but so that two of them are contained under the grade of sensitive soul as such. Finally, that the division is univocal, or into members properly participating in the character of soul in common, can be gathered from what has been said and from what will be said in chapter 4.

Two Questions Are Resolved.

47. It is asked here, 1º, whether what we indicated in n. 45 is true, namely that the aforesaid three grades of soul are really identified in man; or rather whether in each man there are three really distinct souls, namely one purely vegetative, one purely sensitive, and one purely rational. Some of the ancients, reported by Fr. Suárez, Metaphysics, disp. 15, sect. 10, held the latter. Tosca, with the recent Atomists, holds the same in reality, *Compendium Philosophiae*, treat. 10, l. 7, c. 3, prop. 19, where he teaches that the human fetus gradually acquires first a vegetative soul, then a sensitive soul, and finally a rational soul, all really distinct from one another and so capable of association that the one supervening does not destroy or exclude

the entity of the preceding. I say "in reality," because this author at the same time teaches that the first soul upon the advent of the second, and the second upon the advent of the third, although they lose nothing of their own entity, nevertheless cease to be souls because they cease to be first acts, inasmuch as they lose primacy and are subordinated to the higher soul. But this, as is evident, is to lose the name, not the reality, of a soul, since there persists in man everything which in a plant is the vegetative soul and in a brute animal the sensitive soul, and which would suffice for the human body to be a brute animal if God denied or removed the rational soul from it while otherwise sound and whole, as Tosca grants ibid., prop. 18.

48. This opinion concerning several souls in man, however, is rejected throughout the whole School, and by the Excellent Doctor at the cited place is judged philosophically improbable and not very safe in the Faith. Rightly so. For, omitting the arguments customarily made in Physics against a plurality even of subordinated forms in the same matter, no necessity for souls of this kind or insufficiency of the rational soul for exercising in the body the operations of vegetating and sensing can be proved by any reason. That these operations are very distant both from one another and from acts of understanding proves nothing. Otherwise, since there is great diversity between the operations of understanding and willing, and also between apprehension and reasoning, between love and hatred, a multiplicity of rational souls would have to be posited in the same man; and likewise a multiplicity of sensitive souls according to the diversity of acts of imagination, sight, hearing, etc. Nor is it an objection that those operations are material. For if the rational soul, although spiritual, can be the form of a body and be physically united to it, why can it not also elicit operations dependent on the body? There is also the fact that we everywhere experience that excessive attention to the acts of the intellective faculty hinders the operation of sense, and even nutrition. But if these operations depended on distinct souls, there would be no reason for some to be hindered by others.

49. Moreover, that this opinion is not very safe in the Faith is clear from the Eighth General Synod, or Fourth Council of Constantinople, which in canon 11 pronounces anathema against those asserting that there are two souls in man. This is also handed down as certain dogma in *De ecclesiasticis dogmatibus*, commonly attributed to St. Augustine, c. 15, in these words: "Nor do we say that there are two souls in one man, as James and others among the Syrians write, one animal soul by which the body is animated and which is mingled with the blood, and another spiritual soul which supplies reason; but we say that there is one and the same soul in man, which both vivifies

the body by its association and directs itself by its reason." Similar statements are found in Sts. Augustine and John Damascene in Fr. Suárez, l.c., n. 24. Hence not only is the error condemned of those who posit two rational souls in one man, and the error of the Manichaeans who imagined two such that one was placed in man by the good God and the other by an evil god whom they invented; but, prescinding from these errors, the opinion is absolutely condemned of those who posit two souls in one man, one animal or sensitive, the other spiritual and rational. There is added the absurdity deduced by the Excellent Doctor, namely that Christ in dying would simply have abandoned some substance united to the Word, namely a purely sensitive soul, which would then have to be said to have perished; for it did not remain united to the body, otherwise the body would have remained living, which is heresy; nor was it conserved outside the body, since this could not occur without a great miracle unknown to the Church and the Fathers. Therefore the theological axiom concerning the Divine Word would fail: "What He once assumed, He never abandoned."

50. Nor does it help in any way to deny with Tosca the name "soul" to the lower souls in the presence of a higher one because they lose primacy. For, 1º, the whole difficulty concerning the death of Christ the Lord persists. If at that time, when the rational soul departed, the sensitive soul remained in the body, it once again recovered primacy and the name "soul," and therefore rendered the body during the three days animate and living, contrary to the dogma of Faith. But if it was separated from the body, it must have been destroyed or dispersed into atoms, and therefore abandoned by the Word. 2º, the name "soul" is the name of a nature, not of an extrinsically imposed and removable office. For it is the proper name of a substantial form capable of eliciting vital acts in a body, nor does the title "first act" indicate anything else, as we saw above. But a vegetative or sensitive soul such as Tosca posits loses through the advent of the rational soul nothing of its substantiality or proper power for vital motions. 3º, one who posited in one man three substances informing matter and capable of eliciting acts of understanding, although he called them subordinated and denied primacy and the name "soul" to the lower ones, would not escape the error of multiplying rational souls in the same man. Therefore neither does one escape the error of multiplying souls of diverse genera who posits three substances informing the matter of the same man and capable of eliciting vital motions of vegetating, sensing, and understanding. 4º, the vegetative faculty in most acts, for example in the motion of the heart, circulation of blood, and conversion of food into the substance of the nourished, is not subject to the command of reason nor dependent on sensation. Likewise the

sensitive faculty, without waiting for an act of reason, elicits acts of hearing, smelling, touching, suffering pain, etc., and does this especially in children and the mentally impaired. Therefore neither faculty is so subjected or subordinated in man to the higher soul that it does not retain independence with respect to many acts, indeed in the mentally impaired and children with respect to all. Therefore each retains the primacy proper to a true soul.

51. What we have said of man must proportionally be understood also of the brute animal, namely that there are not in it two souls, one purely vegetative and one purely sensitive, but a single soul from which both nutrition and sensation proceed. This can be confirmed from the fact that a brute animal possessing an integrally divisible soul, for example a snake, through nutrition produces new parts of the sensitive soul. These certainly cannot be produced by a purely vegetative soul, as belonging to a lower order. Therefore the nutrition of the snake proceeds from a vegetative soul which is at the same time sensitive. Indeed, independently of the divisibility of the brute soul, a similar argument can be made from generative action, which is proper to the vegetative soul. For when a lion generates a lion, it causes in it a sensitive soul. Therefore this is caused by the vegetative soul of the generator, which consequently must at the same time be sensitive; otherwise a lower soul will cause a higher one, which is absurd.

52. It is objected, 1º: in Sacred Scripture the spirit and soul of man are more than once distinctly named as though they were two things, as when it is said in Dan. 3: "Bless the Lord, spirits and souls of the just." Therefore in man, besides the spirit or rational soul, there is another soul. It is objected, 2º: the rational soul separated from the body neither senses nor vegetates. Therefore vegetative and sensitive operation in man proceed from other souls which perish at death. It is objected, 3º: man is often drawn in diverse directions by contrary appetitions, according to Gal. 5: "The flesh lusts against the spirit." But contrary appetites cannot simultaneously arise from the same soul. It is objected, 4º: according to Aristotle the human fetus first lives the life of a plant, then sensitive life, afterward rational life. Therefore it gradually acquires these three souls and consequently retains them. It is objected, 5º: those things are really distinguished one of which we distinctly conceive without the other, that is, while thinking nothing of the other, according to the celebrated rule familiar to Descartes and his followers. But in man we distinctly conceive vegetative power without sensitive power, and the latter without rational power. Therefore. Finally it is objected: in a human body deprived of the rational soul signs of sensation sometimes appear, namely motions in a heart recently torn out or in a head recently severed, which is also remembered on occasion to have spoken. Vegetative

operation likewise sometimes appears in a corpse, with nails and hair growing. Therefore man possesses a principle of sensing and vegetating distinct from the rational soul.

53. These are slight objections. To 1º: when in Sacred Scripture man's spirit and soul are distinctly named, a distinction in substance is not indicated but a distinction in function and office, so that the same form of man insofar as it vivifies the body and elicits operations common to other animate beings is called "soul," while insofar as it is intellective and capable of existing and operating without the body it is called "spirit." Yet the soul itself, insofar as it absolutely vivifies the body, is often called spirit in Sacred Scripture, as Fr. Suárez shows, l.c., n. 25. To 2º, I deny the consequence, because from the antecedent it follows only that acts of vegetating and sensing are not elicited by the rational soul except dependently on corporeal organs, which are absent in the state of separation. To 3º: by a similar argument a multiplicity of intellective and volitional souls could be proved in the same man, since the same man is often distracted by diverse intellectual apprehensions and contrary affections of the will on account of diverse motives simultaneously proposed; likewise a multiplicity of sensitive souls in the same brute animal, because a dog, for example, is often agitated by contrary inclinations, as when desiring to approach bread but fearing a stick. Therefore the appetitions of flesh and spirit, that is, material and spiritual appetitions, when they disagree with one another and simultaneously exist in the same man, are not so contrary as to be incompossible, because they tend under diverse aspects, and, if one is efficacious, the other is inefficacious. From this it is rather gathered that both arise from the same principle; otherwise they would not retard one another nor would one impede the efficacy of the other, as Fr. Suárez rightly observes, n. 28. They are nevertheless called contrary because one retards or impedes the effect of the other.

54. To 4º: Aristotle seems to speak only of life in second act, or of operation, in that the human fetus first vegetates, then senses, afterward uses reason. This order does not indicate a successive order of souls; otherwise a child would not acquire a rational soul before the seventh year, when it begins to use reason. Therefore this soul is infused in the first instant of animation, although it does not immediately elicit the nobler operations through lack of organic disposition. But if Aristotle is speaking of three souls, it does not follow that all three remain simultaneously in the fetus, but the first will perish upon the advent of the second, and the second upon the advent of the third, as St. Thomas and others philosophize. See disp. 1, *De generatione*, n. 23. To 5º, I deny the major premise if it is

understood generally of a precisive mode of conceiving; for that rule fails in many things, as we shall show in the following chapter, n. 79. We gave the true signs of real distinction in Logic. To the last: those motions of the heart and head proceed from vital spirits which do not all perish in an instant. Speech, if it has ever occurred, must have been attributed to a special providence of God. Vegetation, or growth of hair and nails, is merely apparent; of this we shall speak below when treating of the information of the soul.

55. It is asked, 2º, whether the rational soul so identifies with itself the power of eliciting vegetative and sensitive operation that it is formally vegetative and sensitive. The word "formally" can be taken in two senses. 1º, as signifying identity of account, in which sense we say that man is formally a substance. In this sense it must be affirmed if the rationality of the human soul is taken as the complete species, but denied if it is taken as a differential predicate. For, as we saw in Logic, a difference does not formally include generic grades, such as the grades of vegetative and sensitive soul as such, in which the rational soul agrees with brute and plant souls. 2º, insofar as the word "formally" is opposed to the word "eminently," in which sense it is customarily said that God does not contain the sun formally but eminently, and that the sun, in Aristotle's opinion, is not formally fire but only eminently, because it is of a nobler nature capable of effecting whatever fire can effect, although the definition or univocal concept of fire does not belong to it. The proposed question proceeds in this sense. Several Thomists, following Cajetan, answer negatively, because they think that materiality is included in the proper concept of the sensitive and especially the vegetative soul, and this is far removed from the rational soul, although the latter, by reason of its nobler nature, can produce whatever a material soul can and therefore ought to be called eminently vegetative and sensitive.

56. The affirmative opinion, however, is much more common, and together with our authors and the Scotists it is held by several other Thomists. For the definition and concept of the vegetative soul properly belong to the rational soul, and understand the same of the sensitive soul, whether the former is defined as the principle by which nutrition is elicited, or as the first act of an organic body having vegetative life in potency. Each of these concepts abstracts from materiality, since neither makes mention of it; hence it is univocally verified of the souls of man, brute animal, and plant. If Aristotle and St. Thomas sometimes say that the vegetative soul is contained eminently in the rational, they speak of the purely vegetative soul as contracted through the materiality of the plant. Nor does it matter that the rational soul neither grows nor is increased in its entity as the soul of a

plant is. For this does not belong to the concept of the vegetative soul as such; only that it be the principle of substantial increase by which the composite constituted through it is increased. The same, all the more, must be said of the sensitive soul of a brute animal, even if it is posited as indivisible, namely that it is formally vegetative.

CHAPTER IV.
The Attempt of Certain Authors Against a True Soul in Brute Animals and Plants Is Repelled.

57. Thus far we have supposed that true life and a true soul are *inesse* in brute animals and plants: in plants a vegetative soul, in brute animals a sensitive soul, that is, one materially cognitive. I mean a soul which, as a true substantial form of a purely corporeal composite, is an incomplete and absolute substance, superadded to all the matter, and therefore neither matter nor body by itself alone, though corporeal and material because it depends on matter and quantity in being made and conserved. And first, that in brute animals there is a cognitive soul capable not only through the external senses but also through an internal sense or imagination of eliciting a perception, or vital representation of an object, not very unlike that which men have while dreaming or children before the use of reason; and indeed in such a way that the imagination of the brute animal, which is called "instinct" in first act, as soon as it perceives the object, by natural necessity as though practically judges that the object is to be avoided or pursued by it; and so that this very act of imagination, which is called "instinct" in second act, necessarily excites the appetite of that same brute animal to seek or avoid the same object: this, I say, has rightly been supposed as scarcely requiring proof, since down to these times it was self-evident to all peoples and almost all wise men. Indeed even in the present age it is regarded as so evident that the few recent authors who affect to follow the contrary opinion, or rather a monstrosity of an opinion, are scarcely believed to be speaking seriously.

58. These recent authors are Descartes and his followers, after Antonio Gómez Pereira, a Spanish physician, who first dared in his *Margarita Antoniana* to deny a soul to brute animals. They say, namely, that all beasts are mere automata, that is, machines movable by mechanical contrivance alone, after the manner of a wheel-driven clock and other moving machines made by art. Hence brute animals, according to the Cartesians, although they seem to sense, desire, suffer pain, etc., in reality no more sense, desire, or suffer pain than a clock when it is damaged or taken apart. Nor do they

perform motions other than merely local ones, caused from no other source than the agitation of spirits or subtle particles of matter running through the internal organs of the body, to which an impulse from external objects is often added. In reality the same is held by the Atomists whom Tosca follows, *Compendium Philosophiae*, treat. 10, l. 2, although verbally they grant life and a soul to brute animals. For they deny that there is anything in brute animals besides matter variously modified, and they acknowledge in them no motion except local motion proceeding from some internal portion of matter and often determined and initiated by external objects. Hence they add nothing beyond the Cartesian machine except a portion of fire or some other subtle element which, flowing through the internal channels of the body, causes various merely local motions of the members.

59. The aforesaid Atomists call this fiery matter the "soul" of the brute animal, although it no more deserves the name "soul" than air passing through the pipes of a pneumatic organ. Nor do they acknowledge in brute animals any other genus of life or vital operation than the aforesaid local motion, although this no more deserves the name "life" than the motion of a clock; and although in their principles it is wholly from an extrinsic source, since according to them every corporeal thing is indifferent to motion and rest and can be moved only by an incorporeal mover. Yet Descartes does not exclude such a soul and life, provided all cognition is eliminated from brute animals; nor is it permissible to deny that brute animals are in some fashion living and animate, since in Sacred Scripture, Gen. 1 and often elsewhere, life and a living soul are expressly asserted of brute animals. The cited Atomists agree, however, in excluding from brute animals cognition and the appetite arising from it. Yet, lest they appear excessively strange, they grant "sensation," not indeed "complete" sensation, which includes cognition, but "incomplete" sensation, which consists wholly in the local motion of that pseudo-fiery soul diffused through certain organs of the body and determining the animal's members to local flight from or pursuit of an object. But this distinction between complete and incomplete sensation, invented by Saguens and eagerly seized upon by Tosca, seems to have been devised for no other purpose than to mislead readers with the word "sensation," although used against everyone's meaning, so that they may restrain their laughter, which they would immediately pour forth if they read it flatly denied that brute animals sense, see, hear, suffer pain, etc. Maignan should be thought to have aimed at the same thing, being more liberal than the others in the use of names, as we saw in the cited Preliminary Dissertation, n. 12.

60. The Corpuscularians, therefore, both Cartesians and Atomists, agree in denying to brute animals a soul which is an entity really distinct from all matter, and especially one which is a principle of cognizing, that is, of perceiving objects or operating in any way other than through local motion. We sufficiently refuted them all on this matter in the Preliminary Dissertation to Physics, nn. 24-30. Nor do I think that this opinion, which by the Excellent Doctor, *De anima* I, c. 5, n. 3, is called "an intolerable opinion" and "a great paradox," deserves a longer refutation, although, if one wished or had leisure, it could easily be further confuted by authority, reason, and experience. Yet lest the arguments customarily used by the Corpuscularians disturb the unlearned or render them doubtful, I shall propose and briefly resolve those which Tosca heaps together, especially at the cited treat. 10, l. 2, adding some from other authors.

61. Argument 1º is taken from all those by which the Corpuscularians attack every substantial form entitatively distinct from matter. 2º, because it is not impossible for God to make automata out of flesh and bones which by mechanical contrivance alone, without an entity superadded to all the matter, perform all the motions we experience in brute animals. Consequently we should believe brute animals actually to be such, because entities must not be multiplied without necessity and Nature, or the Author of nature, does nothing in vain. 3º, because the opinion attributing a cognitive soul to brute animals gives atheists an occasion to deny the immortality of the rational soul. For if a brute animal, although cognitive and thinking, has a corruptible soul dependent on matter, the atheist will easily gather that the same occurs in man; nor will there remain any reason by which the independence and immortality of our soul can be philosophically proved. It is confirmed, 1º, because if acts of cognizing, remembering, providing, etc., are not shadowy but true in brute animals, they will differ from human acts only according to more and less. Therefore, if a material and corruptible soul suffices for the former, it will likewise suffice for human acts, provided it is more perfect within the line of material soul, which line certainly admits more and less, as we see in the ass and elephant. It is confirmed, 2º, because if brute animals know what is good and evil for them, they will consequently possess free choice, at least concerning material objects. For according to the Fathers and ancient philosophers man is capable of free choice because he can know good and evil.

62. 4º, because brute animals give signs of judgment and reasoning just as they do of cognition; therefore, just as those signs do not prove a power of judging and reasoning, neither do they prove a power of cognizing. It is confirmed: if the souls of brute animals are cognitive, they will be more

prudent and wise than the human soul, since they accomplish certain works surpassing human skill, such as the honeycombs of bees, spiders' webs, the weaving of silkworm cocoons, predictions of storms, etc. There is also the fact that greater acuteness of the senses appears in certain brute animals than in man. 5º, because, unless one unphilosophically has recourse to the First Cause, no suitable cause can be assigned which produces a brute-animal soul distinct from matter, especially in the generation of animals from putrefaction and in oviparous animals. For a hen does not produce the soul of a chick from her own egg, otherwise she would likewise produce a goose's soul when she broods a goose egg. 6º, because it cannot be explained how a brute soul elicits motion and sensation. For if it possesses motive power, it will be able to move itself and consequently by itself will move the members of the body to which it is united. Why then such a great apparatus of organs? If it can sense, then it is affected by a sensible object, certainly through division, compression, or tension, which are affections of body alone. Therefore such a soul is a body and hence matter, consisting of most minute parts, which falls back into the opinion of the Atomists. Add, 1º, that such a soul will be able to persist separated from the body, because in that state it will not be in vain, since it can move itself, be cut, etc. Add, 2º, that it does not appear how such a soul grows from day to day and becomes stronger, especially if it is posited as a simple entity.

63. 7º, because there are many vital motions in brute animals, indeed even in men, which depend on the structure of the body alone and to which cognitive power contributes nothing, since they occur without the soul's knowing them, or at least without previous cognition, attention, or advertence. Such are all those belonging to the work of nutrition, as well as many others proper to sensitive beings. For not everyone knows which muscles he must use in walking or singing, etc.; nor does the cithara-player advert to how he moves his hand while, distracted by something else, he plays the cithara very rapidly. Therefore all brute motions whatsoever, and even human motions except acts of reason, can similarly occur without cognitive power through the structure of the machine alone. 8º, because the rational soul causes the actions and motions of the body in no other way than through command, to which the structure of the machine is subordinated and immediately obeys while sound. But the brute soul which we posit is incapable of conceiving a command. Therefore it is incapable of causing the motions of the body. 9º, because cognition consists in an image or representation of the object which the soul forms and through which it simultaneously contemplates the object. But a corporeal thing cannot form

this image in itself, since the image surpasses the materiality and inertia of body.

64. 10º, because every cognitive soul better perceives the things it has within itself than those outside itself. Therefore the soul of a snake, for example, can know itself and say "I"; and when divided it will be able to say, "I am in two places," which appears discordant in the very terms. 11º, because the idea of a corporeal thing is one thing and the idea of a cognitive thing another, and neither includes the other. Therefore the same thing cannot simultaneously be corporeal and cognitive. Finally, argument is made from authority. First, from Sacred Scripture, Lev. 17, where it is said: "The soul of all flesh is in the blood." And Deut. 12: "Only take care not to eat blood; for their blood," namely that of cattle, "is in place of the soul, and therefore you must not eat the soul with the flesh." Then from Aristotle, who in *Historia animalium* I, c. 1, attributes to man alone among all animals "the power of thinking"; and in *De generatione animalium* II, c. 1, says that animals can be like automata, which he also teaches in *De motu animalium*, c. 7; and in Physics VIII, text 20, holds that animals are moved not by themselves but from an extrinsic source. Finally, from St. Augustine, who in *De spiritu et anima*, c. 23, calls the corporeal spirit which inwardly vivifies plants and gives sensation to brute animals "air, or rather fire"; and in *De cognitione verae vitae*, c. 4, says: "The life of brute animals is a vital spirit consisting of air and the blood of the animal, etc." Tosca, l.c., prop. 6, says that St. Thomas I-II, q. 13, a. 2, ad 2, seems to assert the same not obscurely.

65. Yet these arguments are too weak to shake a most constant truth or place it among problems. To 1º, we answered at length in Physics, treat. 1, disp. 4, cc. 2-4, where we plainly resolved whatever of any weight the Corpuscularians oppose to substantial form, particularly whatever they quibble concerning the eduction and corruption of forms, and that pseudo-principle, "Every true entity is either matter or spirit," or, "There is no mean between matter and spirit," which the Atomists gratuitously peddle as an axiom. Yet they prove by no argument, nor will they ever prove, that there cannot be a material thing which is not matter, or a corporeal thing which is not a body, just as there is a spiritual thing which is not a spirit, namely intellection, grace, etc. To 2º, we likewise sufficiently answered in the Preliminary Dissertation to Physics, n. 24; and ibid., n. 29, we added a manifest counterexample in the human composite, all of whose actions could with equal right be attributed to mechanical contrivance, especially the actions of a child, a mentally impaired person, or a madman, to whom Corpuscular philosophy is bound to deny a rational, indeed even cognitive, soul if it proceeds consistently, and perhaps would deny it were it not afraid

of the Church's thunderbolts. Certainly nothing will be found in this philosophy explaining why children and the mentally impaired are not to be numbered among machines just as brute animals are; and consequently nothing explaining why they are to be baptized or why killing them ought to be considered homicide.

66. The Cartesians are accustomed to strengthen this argument by the example of various machines which have sometimes been so constructed by human skill as to perform various motions simulating life. From this they gather that such machines can more easily be constructed by the Divine Craftsman so as constantly to perform all the motions whatsoever which we experience in brute animals. But they should be asked whether they have an example of any machine which annually generates similar little machines, gives birth to them, suckles them, and defends them from enemies at its own risk; or which long retains the memory of one who struck it and of a benefactor; or which is compelled by blows and caresses to perform motions correctly; or which, after the manner of a dog already satiated, hides surplus bread in a secluded place until hunger presses again; or which, after the manner of a cat or fox, catches prey and avoids dangers by a thousand devices; or which, after the manner of an ant, gathers in summer the grains on which it will feed during winter, removing their tips or shoots lest they meanwhile germinate; or which according to occasion gives signs of joy, sorrow, fear, pleasure, jealousy, etc.; or which performs or simulates countless other things everywhere occurring in brute animals?

67. To 3°, we gave the retortion both in the cited Preliminary Dissertation, n. 29, and in Physics, treat. 1, disp. 4, c. 3, nn. 22-23. Indeed they seem to inflict a great injury upon the immortality of the rational soul who repeatedly claim that it can be philosophically proved in no other way than by denying a sensitive soul to beasts. Wretched indeed would be the condition of so great a truth if, in order to be proved against atheists, it needed "an intolerable opinion and a great paradox," to use the words of the Excellent Doctor. The atheist will triumph in the absurdity and ridicule one if one argues against his impiety thus: Every substance really distinct from matter is immaterial and immortal, since there is no mean between matter and spirit; but the soul of man is a substance really distinct from matter; therefore. Or thus: Every cognitive composite consists of an immaterial and immortal soul; but man is a cognitive composite; therefore. The atheist will confidently deny the major premise of either syllogism, supported by the authority of all the Catholic Schools, and it will never be proved by any reason, unless perhaps by Descartes's ruinous argument, of which below at 11°. As regards the major of the second syllogism, he will boast that all men,

wise and foolish, think with him except a few followers of an exotic philosophy; indeed he will oppose to one Maignan, a distinguished leader among the Atomists, who, although denying to beasts an immaterial and immortal soul, grants them a power of cognizing, thinking, reasoning, etc. Hence he will reject the immortality of the human soul with a more obstinate mind when he sees it proved by arguments so slight and by principles alien to the common sense of pagans and Christians.

68. To the 1º confirmation, I deny the antecedent if the discussion concerns all human acts and "more and less" within the same species or proximate genus. For among human acts many are manifestly spiritual and wholly surpass the material line; and therefore a material soul cannot suffice for them, however perfect it is supposed to be. To the 2º confirmation, I deny the consequence. For man is not said by the Fathers and philosophers to be capable of free choice because he knows good and evil in just any way, but because he knows in a human manner, namely through an act of reason by which he weighs motives attracting and repelling on either side, constituting himself as judge, as it were, of his own actions. But a brute animal is incapable of this act, since it knows only materially a purely physical and sensible good and evil, with necessity of seeking or avoiding what attracts or repels more strongly. For this reason one will never obtain from an ass that it drink water without thirst, or spare barley present to it while hunger presses and fear is absent. Certainly cognition of good and evil of this kind, necessarily carrying the appetite away, is not repugnant on any ground, as we experience even in ourselves with regard to those motions called "first-prime." See St. Thomas I, q. 83, a. 1, and *De veritate*, q. 24, a. 1, throughout, where he explains at length and wisely why brute animals, although they possess a certain judgment and some likeness of reason and free choice, nevertheless absolutely lack free choice; and there he teaches that according to the Fathers and philosophers the whole root of liberty is reason. See also I-II, q. 17, a. 1, ad 2. Yet the acts of brute animals, although not free, are called "voluntary," that is, "spontaneous," insofar as they proceed from an intrinsic principle with some cognition of the end, though imperfect, as St. Thomas teaches with Aristotle and Sts. Gregory of Nyssa and John Damascene, I-II, q. 6, a. 2.

69. To 4º, I acknowledge that certain beasts operate with such sagacity as to present a great appearance of reasoning. Hence some ancient pagans or heretics attributed to beasts a rationality not unlike the human. But this error is contrary to Faith and reason; and from it we are turned away by Ps. 31: "Do not become like the horse and mule, which have no understanding." Among Catholics there have not been lacking those who granted to brute

animals purely material reasoning concerning purely material objects. This opinion should not displease the Atomists, since it is also Maignan's, at least verbally. It must nevertheless be held entirely that no brute animal is properly rational or shares in reason, not only because brute animals perceive no spiritual object, indeed not even a material object abstracted from sensible matter, since thus far no beast has learned geometry, but also because concerning sensible objects, although they possess an improper or virtual judgment consisting in a certain apprehension apt to move and determine appetite, they nevertheless do not properly judge by composing and dividing, that is, by comparing a subject with a predicate and pronouncing judgment concerning their distinction or identity. For this requires beforehand some notion of identity and distinction, and therefore of being in common, which, since it abstracts from all matter, far surpasses material or brute-animal cognition.

70. All the more no brute animal properly deliberates or reasons. For if it cannot compare subject with predicate, still less can it compare and weigh diverse and contrary objects with one another, or detect the connection of one with another so as to infer consequences. Hence brute animals of one species operate in nearly the same manner; and the same individuals, says Fr. Suárez, *De anima* III, c. 6, n. 7, from St. Thomas I-II, q. 13, a. 2, ad 3, always and everywhere preserve the same manner of operating unless diverted by some extrinsic cause or impediment. This is a sign that they are acted upon by a certain limited cognition, in no way variable through ever different compositions and divisions of extremes. This experience and the aforesaid reason, together with the consent of nearly the whole human race, which can be regarded as a dictate implanted by nature, is rightly held as a physical demonstration against the rationality and freedom of brute animals. For this reason whatever sagacity, discrimination, prudence, or foresight appears in brute animals is rightly attributed to the Author of nature, who made brute animals endowed with such instinct that they immediately cognize and seek whatever advantageous or disadvantageous thing is presented to them, although they cannot give or know the reason of their acts. A contrary dictate of nature, contrary reason, and contrary experience evidently contend for sensation and internal cognition in beasts. Hence the foundation for attributing to them the power of cognizing is far different from that for attributing the faculty of reasoning. Indeed if it is difficult to conceive beasts operating in such ways without reasoning, how much more difficult is it without any cognition whatsoever? Therefore the argument of the Cartesians is like this: Tin bears not only the signs of a metal, but of silver; but it is not silver; therefore it is not a metal either.

71. To the confirmation, the consequence is denied, both because of what has just been said and because, although brute animals seem in one or another slight work to surpass human skill, they are surpassed by human industry in infinitely many others. They are capable of no speculative science; they learn no art, even mechanical, through general rules; they never know how to make a clock, firearm, cithara, indeed a garment, hat, or shoe in a human manner. A silkworm and spider do not know how to weave the sort of cloth made by men, although that seems easier. Indeed a silkworm cannot construct a spider's web or conversely, nor a nightingale a swallow's nest, or vice versa; and so of the rest. This manifestly shows that these animals do not operate from a proper idea, nor from rules of art, nor in such a way as to recognize the reason why they operate in that manner. They nevertheless operate from appetite for the advantage which they apprehend in the individual features of their works. For otherwise it cannot be understood whence the machine of the silkworm or spider is thus moved, or by what spring or impulse it elicits such motions. Nor is it true that brute animals foretell or foreknow future storms. They merely sense a present change in the air and thence break forth into certain actions from which men take prognostics or gather that a storm is imminent. See St. Thomas I, q. 86, a. 4, ad 3, and *De veritate*, q. 12, a. 3, ad 19. That certain brute animals excel man in the acuteness of external senses is no more absurd than that they excel in bodily strength; for man always excels in skill and intellect.

72. To 5º: the difficulty is common to all, except that it presses the Corpuscularians more strongly. For unless they have recourse to the First Cause they can assign no cause why that vital flame, that portion of most refined fire which they call the brute soul, is present and at hand to be introduced into the little machine of the body; why, I say, it is present wherever an animal is generated, and present not in just any fashion but aptly composed of fiery particles "modified in such a way, united in such a dose and quantity," as Tosca requires for the quiddity of the soul, l.c., prop. 9. Certainly the parent does not infuse it into the fetus. Otherwise the parent would remain without a soul, since it possesses only the soul necessary to itself. A hen likewise would infuse the soul of a goose, which it does not contain, since that soul differs from a hen's at least in modification, dose, and quantity. A soul is also often infused without a parent, as when animals are generated from putrefaction or chicks are hatched from eggs without a bird's incubation by the warmth of a hearth or manure. If they say that fiery particles are everywhere present mingled with air and other bodies, I ask what cause unfolds, joins, and "so" modifies them, in precisely such a "dose and quantity." This certainly is not done by the soul of the

parent, which is often absent, as I was just saying; and when present, it cannot move from place to place particles of fire hidden in the pores of the air unless it leaves the parent's body and abandons it without a soul. The same must be said of the organization of the body, for which the Cartesians or Atomists can assign no suitable cause except God. For what use is the seminal rudiment which they celebrate and whose increase they describe at length? Will it be able by its own power to increase and perfect itself? And what cause formed the rudiment itself so artfully? Therefore all of us are compelled to have recourse to the First Cause. What sort of recourse this is in our principles, and what influence we attribute to seminal power, see Physics, treat. 2, disp. 6, c. 2, nn. 25-29. See also disp. 1, *De generatione*, c. 2.

73. To 6º, we grant that the soul of a brute animal possesses motive power by which it moves the body and consequently itself by way of one thing; for it has no operation independent of body or quantified matter. Nor are the muscles and other bodily organs therefore superfluous. For they are required not so that they themselves move, but so that they render the matter movable in the proper fashion, namely with that variety of motions which the animal requires both as sensitive and as vegetative; just as shape in the potter's wheel is not a motive power, but a necessary condition for the potter to impress the circular motion which he requires. And a counterexample is found in the rational soul, to which the power of moving the bodily members cannot be denied. But if the soul were divinely to remain united to an unorganized body, then either it would not exercise its motive power through lack of a condition without which it cannot act on the part of the subject, or it would produce an incongruous motion, no differently from a potter if in place of a wheel he moved a triangular body. The claim concerning affection by a sensible object through division, compression, etc., rests on false Corpuscularian prejudices, for they know or wish to conceive nothing in physical things except mechanically, and recognize no affection except through contact. It must be denied that the brute soul cannot be otherwise affected by a sensible thing, since affection through qualities remains, of which we shall treat below when discussing intentional species. We nevertheless admit that the brute soul can be divided together with the body and consist of very minute parts, without thereby falling into the opinion of the Atomists. For from this we are not compelled to identify such a soul with body or matter, but only to acknowledge it as material and corporeal; and this is very different, whatever they may protest.

74. The additions to the argument accomplish nothing. The first is retorted against the Atomists, because in their doctrine there is no reason why the fiery soul of a lion should be corrupted or cease to exist outside the

body. For the whole of that soul, not only as regards the substance of fire, which the Atomists posit as incorruptible, but even as regards modification and dose, has no reason to depend on the organic machine; nor will it be in vain outside it, since it can exercise its motion and serve various advantages of the world. One may say: that flame, placed apart, will indeed be moved, but not by that motion to which it is determined through the structure of the machine, which motion belongs to the essence of fire as soul. Against this: that motion, since it is the vital operation of the soul, or life in second act, cannot belong to the essence of the soul; otherwise actual thought would belong to the essence of the human soul, which Tosca rightly denies, treat. 11, l. 4, c. 1, prop. 3. In our principles it is easily denied that the brute soul can naturally exist outside the body, because, since it is a form educed from the potency of matter, it naturally depends on matter in being made and conserved, and consequently in operating and undergoing; nor can it be divided or compressed except as quantified, and therefore as united to matter, without which there is no quantity.

75. The other addition dangerously revives the argument of the Epicureans against the immateriality of the human soul, drawn from the fact that it too seems to grow from day to day and to acquire powers together with the body even for understanding. For the soul of a man understands better than that of a child and is more apt to operate in a healthy body than in a sick one. Therefore, just as it is answered on behalf of our soul that this diversity proceeds from the diverse disposition of the organic body, through whose ministry the human soul in the state of union receives species for understanding, so all the more must it be answered on behalf of the brute soul, if posited as indivisible, that it does not increase with respect to entity, but only with respect to proximate aptitude for operating, which is constituted through the temperament and organs of the body. Moreover, I ask the Atomists how the fiery soul which they posit in brute animals grows, and how it increases and perfects the organic body. Whence does it acquire new parts of flame? If they say that they are extracted from the pores of the food by which the brute animal is nourished, I ask again by what power they are extracted and aptly joined to the preexisting flame. By magnetic power? Electrical? By an occult sympathy which they call “the refuge of ignorance”? Likewise, if matters stand thus, food will be more apt to nourish in proportion as it contains more fire. Hence a dog will be very well nourished by drinking flame or eating burning charcoal, and at least will be better nourished by pepper or gunpowder than by bread. Further, by what power are the bodily organs increased and perfected through the fiery soul? Surely they ought rather to be dried out and burned, especially since that vital fire

is not idle and inert but wonderfully vigorous and active, as Tosca repeatedly insists. For who has ever experienced in fire a power formative of flesh, bone, nerve, cartilage, etc.? Or who has not rather experienced, with respect to flesh long applied to it, a power of roasting, scorching, and burning?

76. To 7º: in the same way it could be proved that no external human action presupposes cognitive power and sufficiently indicates it, since the actions of walking, singing, playing a cithara, and even speaking can arise from the structure of the machine alone. For not everyone speaking foreknows which muscles he must employ for movement of the tongue. Nor may one have recourse to the order and coherence of speech, for, as we argued elsewhere, how will one prove that the machine of the human body could not have been so fabricated by God that in such circumstances it emits such articulated words coherently? We grant, therefore, that there are many motions in animals, especially those pertaining to nutrition, which, although they proceed from a really cognitive soul, do not presuppose cognition nor depend upon it; and consequently cognitive power in the soul of a brute animal cannot be gathered precisely from them. But this power is manifestly gathered from many other motions which are called spontaneous, some of which we indicated in n. 66. Nor is it true that the cithara-player in no way adverts to how he moves his hand. He adverts, though slightly, as much as suffices for using memory; hence, if through some illness he loses memory, he will not know how to play the cithara, as experience teaches. That the soul does not know which muscles must be used creates no obstacle. For it suffices that the action of the sensitive appetite through natural connection infer such motion of the hands or feet that motions of those nerves by which the feet or hands are in fact rendered movable are immediately produced by the same soul.

77. To 8º, I deny the major premise, because the rational soul causes the motion of the body not only through the command of the will but also through physical efficiency. Moreover, command can be conceived in a broad sense from the appetitive power of a brute soul, not insofar as it imports the power of ordering, but insofar as it imports the power of moving or determining other powers. This is the doctrine of St. Thomas I-II, q. 17, a. 2, ad 1. Therefore the Atomists' argument limps on every side. Add that if the rational soul operates in the body in no other way than by command, it will be wholly idle in children and the mentally impaired, in whom it does not conceive a command, since a command either is an act of reason or presupposes one. Therefore a rational soul must be denied to children not yet using reason, because Nature does nothing in vain. To 9º: the adversaries prove by no reason that a corporeal thing cannot form a vital image or

representation of an object which is purely material, such as the imagination forms in children and sleeping persons. For although an image of this kind surpasses the inertia of body, that is, of matter, it does not surpass the activity of a corporeal soul.

78. To 10°, I deny the antecedent, which prepares the way for denying the cognitive power of the human soul, since man perceives the construction of a clock better than that of his own body, and our soul sees the surface of a table more clearly than its own quiddity. It must therefore be said that the brute soul, since it receives species of objects only through the external senses, perceives better those things which are more suitably presented to the external senses. Hence such a soul has no cognition of itself by which it could say "I," since it perceives its own substance by no sensation.

79. To 11°, I distinguish the antecedent: the idea of the corporeal thing and that of the cognitive thing are different by precisive diversity, I grant; by exclusive diversity, I deny the antecedent and consequence. For although one idea can be prescinded from the other and does not include it in its formal concept, it nevertheless involves nothing by which it excludes the other or by which real identity with it is repugnant. Here are evident counterexamples. The idea of soul is one thing, that of a corporeal thing another, and neither includes the other, since there is a soul, namely the rational, which is not corporeal, and likewise there is a corporeal thing which is not a soul. Therefore there could not be a corporeal soul in a horse. Similarly, the soul of man could not be intellective or spiritual, because in the idea of soul there is not included the idea of a spiritual or intellective thing, nor conversely, as is clear in an Angel and the soul of a brute animal. Likewise neither man nor brute animal could be a living body, because the idea of body is one thing and that of a living thing another, since there is a nonliving body and a living being which is not a body, namely an Angel. Likewise the beatific vision would not be supernatural, for the idea of vision does not include the idea of supernaturalness, nor conversely. God also would not be just and merciful by identity, for the idea of mercy is not the idea of justice, nor conversely. I omit other easily found counterexamples. Hence this mode of arguing from the diversity of ideas, although highly valued by the Cartesians and by Tosca, must be despised as inept. I use the name "idea" according to the use, or abuse, of the Cartesians, who employ it for any concept or cognition of the quiddity of an object, although properly it signifies an exemplar of a work to be made, as is clear from Physics.

80. To the final argument: one may rightly wonder that the adversaries dare to argue from authority, although they are not ignorant that they

struggle against the judgment of the whole human race. If we had to argue from this source, there would be no end of volumes. The Atomists too are bound to answer the cited passages of Scripture. For if the blood of brute animals is in place of their soul, then flame or most refined fire is not in place of their soul, since it is distinguished from and separated from blood. Likewise, since there the eating of blood is forbidden even when extracted from the body, in which state the blood no longer possesses the Atomistic soul, whose particles are dispersed at the death of the animal just as particles of fire when a flame is extinguished, as Tosca teaches, the Hebrews would be warned in vain not to eat the soul together with the flesh. Therefore, omitting the mystical sense, it must be said that those texts signify only the great dependence of the soul upon blood, without which it cannot naturally be conserved in the body. This is that form of speech by which we say that the soul and life of an animal are placed in respiration, and by which among Latin authors, even when speaking of man, breathed air is everywhere called the "soul," while "to breathe" means the same as "to draw breath," just as "to prevent respiration" and "to cut off the breath" are taken for the same thing. By these phrases no one understands the first root of vital operations to be signified, but only a metaphorically named soul, or the dependence of the true soul upon respiration in order to vivify the body. Moreover, Divine Scripture more than once expressly grants brute animals the power of cognizing; for example, Isa. 1: "The ox knew its owner, and the ass the manger of its lord"; and John 10 concerning their own shepherd: "The sheep follow him because they know his voice; but they do not follow a stranger, but flee from him because they do not know the voice of strangers."

81. Who would not laugh at Aristotle being alleged against us, when his mind concerning the cognitive power of the brute soul is exceedingly well known, especially from Books II and III of *De anima*? Yet he rightly attributes the power of thinking to man alone, because thought is not just any cognition, but one collating several things with one another, which belongs to man alone. Therefore the internal sensitive power which in man is called "cogitative" is in brute animals called "estimative." See St. Thomas I, q. 78, a. 4. The comparison of animals with automata which Aristotle indicates once or twice is a likeness, not an identity: a likeness, I say, founded on the fact that, just as certain automata have within themselves some principle of motion, such as the elasticity of coiled steel in a wheel-driven clock, so animals possess within themselves their soul, which is the principle of vital motions suited to them. Aristotle is accustomed to use the example of artificial form in order to explain the character of the soul and of

substantial form generally, although he recognizes a great difference between the two forms, as St. Thomas aptly notes in *De anima* II, lect. 2. What is objected from Physics VIII, text 20, is frivolous, as will be clear to anyone reading it. For Aristotle does not there deny but rather asserts that an animal is moved by itself. He says only that the motion of an animal is commonly preceded by some motion from an extrinsic source through cold or heat or through species of objects, and that on the occasion of this motion the "intellect and appetite" are aroused, which afterward move the whole animal. Hence there the discussion also concerns an intellective animal, or man. Will anyone deny that man is moved by himself? See St. Thomas there, lect. 4, letter f.

82. The great Augustine is no less improperly objected against us, since he very often recognizes in brute animals the power of sensing and cognizing. "Beasts sense," he says in the dialogue *De quantitate animae*, "and almost all enjoy those five senses to the extent that nature has bestowed upon each." One may perhaps say that Augustine is speaking of the incomplete sensation discussed above in n. 59. But, omitting the fact that the word "to sense" signifies to learned and unlearned alike the cognition or perception of an object, and Saguens and Tosca are not permitted to impose a new signification upon common words, this recourse is blocked by Augustine himself in *De musica* I, saying: "I think you cannot deny that beasts possess memory; for swallows return to their nests after a year, and it was most truly said of the she-goats: 'And the she-goats themselves return, remembering, to their roofs.' And it is reported that a dog recognized its master, whom the master's own servants had already forgotten, etc." He has the same in *Confessiones* XIX, c. 17 and 25, and often elsewhere. Certainly memory imports cognition of a past or previously known thing, unless perhaps one wishes also to invent an incomplete memory lacking cognition, which will be more than ridiculous and evidently contrary to Augustine, who takes "to have recognized" and "to have recalled to memory" as the same. Therefore in the cited places by the name "spirit" St. Augustine does not understand the soul of a brute animal, but that portion of attenuated food or blood whose parts are called "vital and animal spirits," because they serve as necessary instruments, as it were, for the functions of vegetating and sensing. Hence they are said to vivify and give sensation to the animal, not because they are the first root of vital operations, but because without them the animal neither lives nor senses. The Atomists themselves must acknowledge this. For that spirit of which Augustine speaks, "consisting of air and blood," is not the brute soul, since among the Atomists that soul is most refined fire. The same spirit in that c. 4 of *De cognitione verae vitae* is

said to "possess memory," which certainly cannot be true except insofar as it dispositively or instrumentally aids memory.

83. Finally, what Tosca adds concerning St. Thomas I do not know how it can be said with any appearance of truth, since the Holy Doctor throughout that article 2 presupposes in brute animals the power of cognizing and denies them only election; and specifically in the response ad 2 says that something is represented to them through sense and imagination. Perhaps Tosca meant to cite the response ad 3, where St. Thomas says that natural things are compared to Divine art as artificial things are compared to human art, and adds that certain processes of brute animals which seem to display prudence or sagacity are ordered by the supreme art. But we all everywhere say this very thing, namely that the supreme Craftsman from a most perfect idea created animals, ordering and intending, better than any human craftsman, certain of their motions, for which He adapted a suitable nature or intrinsic root. Therefore all of us could with equal right be alleged in support of the automatism of brute animals, so to speak. Read St. Thomas at the cited place and it will plainly be seen that he intends nothing except that in brute animals "there is no reason or election." But what need is there of investigation, when the mind of the Angelic Doctor concerning the cognitive soul of brute animals is so evident in innumerable places that it is clearer than the midday sun? See especially I, q. 18, a. 3; q. 78, a. 4; q. 83, a. 1; likewise I-II, q. 6, a. 2; q. 11, a. 2; likewise *De veritate*, q. 24, a. 2; likewise his commentary on *De anima*, especially Books II and III, where he everywhere speaks of the sense and cognition of brute animals as a matter undoubted and self-evident.

84. Having asserted a properly sensitive soul in brute animals, it remains briefly to assert a vegetative soul in plants. Some ancients denied that plants properly live, and consequently that they possess a true soul. The Cartesians and Atomists attribute to plants no other life or vital operation than the local motion by which the parts of plants are expanded through the addition of matter, and no other soul than a modification of matter through such figure, position, or interweaving; or at most they posit as soul a subtler part of matter flowing within the organs of the grosser body. In reality this is to deny true life and soul to plants. For, first, that motion is not from an intrinsic principle according to the Cartesians and several Atomists, as we noted in n. 59. Indeed even according to Maignan, who, although he grants to atoms a motive power, reduces the whole of it to a requirement of motion proceeding from God alone; but mere requirement does not suffice for motion properly to be from an intrinsic principle. Otherwise someone would be said to possess from himself and intrinsically what he obtains only by

prayers, for example a beggar bread or clothing. Next, neither a modification nor subtler matter is truly a soul, both because neither is a true root and principle of motion, and because modification is accidental and of the same order as the form of a clock, while subtler matter no more informs or animates the body than air does a pipe, or fire a furnace, or at least no more than subterranean fire animates the globe of the earth, whose internal bowels it pervades according to Tosca and most of the adversaries.

85. In favor of this opinion, which denies that plants properly live, it may be argued, 1º, that in the first formation of things, Gen. 1, although the generation of plants precedes, there is no mention of a "living soul" until the production of brute animals is reached. There is also the fact that in Latin usage, when there is mention of "animate beings," not plants but beasts are understood. 2º, because vegetation or nutrition is not properly a vital operation: both because it belongs also to fire, and because it occurs through elemental qualities, and because it is not of itself immanent, since it can be from an extrinsic source. 3º, because nothing is living unless it in some way participates in the life of God, just as nothing is intellective unless it in some degree participates in God's intellectuality. But a plant in no way participates in God's life, since this is wholly in the intellective and volitional line. 4º, because vegetation also belongs to metals and stones, as modern experimental philosophers observe.

86. Nevertheless, says the Excellent Doctor, *De anima* I, c. 4, n. 11, it is certain in theology and evident in philosophy both that plants live and that the vegetative form is a true soul. First, it has a foundation in Scripture, as in the words of Paul, 1 Cor. 15: "What you sow is not vivified unless it first dies," where the production of a plant is called vivification. Hence St. Augustine, *De civitate Dei* I, c. 20, says: "This genus of things," that is, plants, "although it does not sense, lives, and therefore can die and be killed." And in sermon 27, *De verbis Apostoli*: "To us," he says, "living is common with trees and shrubs; for the vine lives when it flourishes and dries up when it dies, but this life does not possess sense." The other Fathers of the Church everywhere assert the same, and Aristotle presupposes it as undoubted in the books *De anima* and very often elsewhere. It is easily shown by reason. For a plant manifestly possesses an organic body, certainly endowed with a substantial form, and capable of moving and perfecting itself beyond the connatural state due to it in the first instant of generation. This kind of motion, which does not lack immanence by reason of its specific concept, as we saw in chapter 2, without doubt suffices for life. Therefore a plant possesses the first act of an organic body having life in potency, which is the definition of a true soul. Plants also manifestly possess a term of magnitude

and smallness, youth and old age, a variety of other ages, health also, and diseases; and no one is ignorant that all these are peculiar to living beings.

87. The proposed arguments are easily answered. To 1º: from this it is proved only that the form of a brute animal is called a "living soul" by antonomasia, because life in brute animals is better known and more manifest than in plants. Hence St. Augustine, *De Genesi ad litteram* VII, c. 16, says that in Scripture by "living soul" is signified that which besides nutrition possesses spontaneous motion; and nevertheless there he explains how there is in plants motion from an intrinsic principle and life. The same must be said of the Latin word "animate beings." For likewise by the name "vegetative beings," or "vegetables," plants alone are customarily understood, although vegetative operation without doubt belongs also to brute animals and man. To 2º: above in chapter 2 we gave the distinction between the nutrition of a plant and the accretion of fire, which is called nutrition only metaphorically. We also explained how nutrition differs specifically from every transient action or action from an extrinsic source. Nor is it true that nutrition occurs through elemental qualities except dispositively or instrumentally, for the soul itself immediately concurs in it of itself.

88. To 3º, there is a counterexample in a purely sensitive living being, and likewise in a created intellective being, which lives through an accidental operation, whereas God actually lives only through His substance. Therefore in the life of God aspects more or less common or abstract can be considered; and according to the aspect of one operating immanently without perpetual determination from an extrinsic source, vegetative beings can participate in the life of God. To 4º, it can be denied that vegetation properly so called exists in metals and stones, since through lack of an organic body it does not occur through inward assimilation but through mere juxtaposition, like the accretion of fire. If, however, one contends that their body is in some measure organic, I shall admit that metals and stones, as long as they are in their proper mine, matrix, or place where they arise, participate in the grade of vegetative soul, but most imperfectly, just as oysters and certain other very imperfect little animals participate very imperfectly in the grade of sensitive soul.

89. Finally, observe that there have not been lacking those who, declining to the opposite extreme, granted to plants a power of sensing and cognizing. The Manichaeans once held this, whom the great Augustine ridicules in *De moribus Manichaeorum* II, c. 17; and in *De quantitate animae*, c. 33, he calls their opinion "a rustic impiety and sacrilegious error, and an opinion more wooden than the very trees whose cause it defends."

Experience also sufficiently shows that there is no suitable indication of sensation in plants. Nor do the motions of certain plants discussed above in chapter 1 create an obstacle, for they do not presuppose organs of the senses in the body, at least apart from touch. Yet that even touch is absent from those plants is proved by the fact that they give no sign of pain when they are broken or torn apart.

DISPUTATION II.
ON THE SUBSTANCE AND INFORMATION OF THE RATIONAL SOUL.

Before discussing the powers and acts of the soul, it is necessary to know its substance more distinctly through its attributes, or essential predicates, than under the abstract notion of substantial form, or of the first act of an organic body, or even under the notion of a principle of vital operations. And although the rational soul, because prior in dignity, is usually treated later, nevertheless it is better, as it seems to me, to begin with it: both because mention of it occurs everywhere and its attributes are presupposed, and because by comparison with it the other souls of an inferior order are better explained.

CHAPTER I.
The Spirituality, Indivisibility, and Immortality of the Rational Soul Are Proved.

1. By the name "rational soul" is signified the principle of understanding intrinsic to us, by virtue of which we reason and perceive every kind of being when occasion is given. That this principle exists within us can be called into doubt only by an irrational blockhead. It is also more certain than certainty itself that this principle is a substance. For if every natural body, and especially every living one, has a substantial root of its operations, who could doubt this in the case of man? Hence those ancient pagans and

heretics are to be ridiculed (see Conimbric. in 2, *De anima* c. 1, q. 1, art. 3) who said that the soul, even the human soul, consists in a harmony, or temperament, of the primary qualities, because, namely, when the temperament fails man dies, and according to variations of temperament the passions and affections of the soul vary. They are indeed to be ridiculed: both because they confuse a mere disposition, or condition without which the effect does not occur, with the first root of operations and even of the temperament itself; because vital acts, especially those of man, manifestly surpass the whole power of elemental qualities; and because the rational soul freely masters the passions arising from temperament, restrains them, and contains them.

2. Descartes also, who places the essence of the rational soul in actual thought, just as he places the essence of body in actual extension, must be wholly rejected. For thought is an accident, since it is everywhere variable and can, while the man remains uncorrupted, be present or absent, at least as regards a particular thought; because the essence of the soul would thereby vary repeatedly; because the soul, once existing, would not in its operation be subject to the dominion of God; because what we first conceive in the soul is not thought, but the power of thinking, or understanding; because an infant in its mother's womb would think, which occurred to no one's mind except Descartes'; and because the essence of body likewise does not consist in actual extension, as is evident to every Catholic from the Eucharist.

3. By opposition, others must also be rejected, likewise pagans or heretics (see Conimbric. l. cit. ar. 6), who dreamed that the human soul is a particle of the Divine substance. For this plainly conflicts with the immutability and simplicity of God and makes the soul uncreated, incapable of sin, etc. Hence this folly was condemned by the First Council of Braga and by Leo I, epist. 91, c. 5; it is also attacked by St. Augustine, l. *De origine animae* c. 2, and more extensively by St. Thomas, Summa Theologiae I, q. 90, art. 1, and *Summa contra Gentiles* II, c. 85. The rational soul, therefore, is a created substance, yet most noble and reflecting the Divine perfection: both insofar as it is intellective and volitive, a perfection that needs no proof, since experience and our own consciousness render it evident to us, and because it is spiritual, indivisible, and immortal, as we shall now demonstrate briefly and under the principal heads.

The Rational Soul Is a Spiritual Substance.

4. That our soul is a "spiritual substance," or, what comes to the same thing, "immaterial and incorporeal" (by this name everyone here understands a substance distinct from quantified matter and naturally independent of it), is clearly deduced from the principles of Faith, as Fr. Suárez learnedly shows, l. 1, *De anima* c. 9. For in very many passages of Sacred Scripture the rational soul is called "spirit," as Matt. 25; John 19; Ps. 30; Tob. 3; and very frequently elsewhere. Nor does it matter that in Sacred Scripture the soul of a brute, air or wind, and other subtle bodies are sometimes called "spirit." For whenever the discourse concerns an intelligent thing, the name "spirit" is properly taken for an incorporeal substance; otherwise it would not be sufficiently established from the Divine Scriptures that God is incorporeal. Moreover, in Eccles. 12 the human soul under the name "spirit" is clearly contrasted with body and matter, when it is said: "Let the dust return to its earth, whence it came, and let the spirit return to God, who gave it."

5. But all ambiguity whatever is removed by the declaration of the Church, which is the certain rule for interpreting the oracles of Scripture. Let the Lateran Council under Innocent III be heard, in the chapter "Firmiter" *De summa Trinitate*, where it speaks thus of God: "From the beginning of time He created from nothing both creatures, the spiritual and the corporeal, namely the angelic and the mundane, and thereafter the human, as though common to both, consisting of spirit and body." The same was confirmed by the Lateran Council under Leo X, sess. 8, teaching that it is no less certain that the rational soul is incorporeal than that it is immortal. The Fathers of the Church likewise teach this everywhere, as cited by Fr. Suárez loc. cit. n. 12, especially St. Augustine in many places, e.g. Epist. 57 and in Ps. 145. And if one or another sometimes calls the soul corporeal, he speaks in comparison with God, who is purest act, or understands only connotative corporeity, insofar as the soul has an order to the body of which it is the form. Tertullian, however, is rightly accused of error on this point.

6. The same truth is demonstrated philosophically, 1º, from the operations of the human intellect, whose acts soar above all corporeal things and manifestly belong to the spiritual order. For they attain positively spiritual objects, namely God and Angels; they penetrate first principles applicable to corporeal and incorporeal things; from all these they abstract common notions, and even the most general notion of being itself. Hence

they imitate not only the angelic but even the Divine mind in the breadth of their objective sphere, or of the formal aspect "under which." Since, therefore, acts of cognition are specified by their object, they must have proportion with it, at least as regards the spiritual order. For who could conceive this flight and elevation within the limitation and baseness of a material thing? If perhaps one infers: therefore human intellection belongs to the Divine order. I answer by denying the consequence as regards belonging by identity; for it is otherwise evident that human intellection is neither supremely perfect nor uncaused. I grant it, however, as regards belonging by similarity in perfection, not transcendental but, as it were, specific to God, namely the intellective power or intellection. For this reason Gen. 1 says that man was made to the image and likeness of God. Now, if the act is immaterial, then so too is the power that naturally elicits and receives it: both because no power naturally elicits an act of a higher order, to which pertains the saying, "The mode of operating follows the mode of being"; and because, if the act is received in a corporeal power, since it depends upon that power in its being, it will be corporeal. But if the power is spiritual, then so too is the substance of the soul, which either is identified with the intellective power or roots it as a property of itself; and no corporeal substance roots a spiritual property, as is clear.

7. Confirmation 1º: every corporeal power, or, what is the same, organic power, is weakened and dulled by long use and age, as experience shows in sight, hearing, imagination, and other organic powers, which are more vigorous in youth than in old age, whether in brute or man. But the intellective power becomes readier and sharper through the use of reasoning, and rather "mind, reason, and counsel are found in the aged." Confirmation 2º: an organic power is injured by an excellent object, as sight by excessive light and hearing by a violent sound, and is thereby rendered incapable, or less capable, of lesser perception. Not so the intellective power, which is rather perfected by contemplating more sublime objects and more easily penetrates inferior ones. Nor does it matter that, in the state of union, the human mind receives the species of objects only through the organs of the senses, and cannot regularly understand without a preceding or concomitant act of imagination, whose suitable mode of operating it requires. From this it comes about that the use of reason is delayed in children and fails in fools, the insane, and the decrepit; and likewise that the head is fatigued by reasoning, namely through the labor of imagining.

8. This, I say, does not obstruct the argument. For although on this account the mind is said in its operation to depend "inchoatively" upon a corporeal organ, nevertheless it does not depend upon it immediately and

elicitively, but is raised above the sphere of the senses; just as a painter, although he needs someone to provide a panel or the material of colors, nevertheless does not immediately depend upon him in the act of painting. This independence of the intellect is evident, 1º, because it often judges of objects otherwise than the senses report. For the senses, even the internal sense, report nothing except the corporeal, e.g. when imagination presents an Angel as a winged youth, or God as an immense sea diffused everywhere; but the intellect judges that God is a pure spirit and that an Angel differs essentially from every corporeal thing. 2º, because the mind corrects the errors of the senses, as when it judges that a stick immersed in water is not broken or bent, that the sun is larger than the earth, and similarly in other cases. 3º, because it uses species received through the senses to know many things inaccessible to the senses, e.g. the quiddities and substances of things, and to attain universal propositions and sciences through first principles.

9. It is demonstrated, 2º, from the freedom and dominion of the human will. For, 1º, free choice, since it is found in every clearly spiritual substance, namely God and an Angel, belongs to no manifestly corporeal thing, as is evident even in the more cunning brutes; for all individuals of one species operate almost uniformly. 2º, by reason of freedom the human soul rules the body, resists its inclination, restrains passions, rejects pleasures, despises death, and does not necessarily change its morals when the body changes. But a soul that thus rules the body cannot be corporeal, since it plainly shows itself superior to the body, of a higher nature, and independent. Confirmation: the rational soul delights in spiritual things and is, as it were, nourished by them; therefore it has a spiritual nature. The consequence is evident: both because no manifestly corporeal living thing takes such delight, and because food must be proportionate to the nature of the living thing nourished. Hence the saying of Nazianzen in the *Apologeticus*: "There is a great difference between body and soul; for just as the body is nourished by corporeal things, so the soul is fattened upon incorporeal things." Nor does it matter that man also desires corporeal food. For this arises from the need of the body. But the proper and native food of the soul is the study of wisdom, the beauty of virtues, and especially contemplation of the Divine Maker, "by the incorporeal embrace of whom alone, if one may so speak, the intellectual soul is filled and made fruitful with true virtues," as St. Augustine says, l. 10, *De civitate Dei* c. 4.

10. These arguments are more solid than Descartes' demonstration, which Tosca greatly esteems. It is this: It is evident that in the idea, or concept, of body nothing is contained except extension and aptitude for local motion; but to think, or understand, neither signifies extension nor

consists in local motion; therefore, etc. This reasoning, as stated, is far from a demonstration. 1º, because the major proposition, if by the name "body" it signifies a physical composite, is false, as is evident in man. If it signifies only quantified matter, the major will be admitted, but it will be denied that understanding is not corporeal, although it is not a body. If, finally, it signifies corporeal thing in general, the major will be granted in a precisive, not in an exclusive, sense; because the concept of body, although it does not formally contain other predicates, does not therefore exclude real identity with them. Thus in the concept of life, which, taken metaphysically, belongs univocally to a corporeal and a spiritual living thing according to Tosca tr. 10, lib. 1, propos. 2, spirituality is not contained; and yet the notion of life is identified with spirituality in an Angel. If one says that spirituality is included, not in the concept of life as such, but in angelic life, it will likewise be said to him, until he produces other arguments, that understanding is included, not in the concept of body as such, but in the concept of the human body. 2º, because the minor proposition is not proved by the Cartesians, although it should be. For if the cognition and thought of brutes consist in local motion according to Maignan and the Atomists adhering to him, why not understanding also? If one denies that brutes know, one himself knows how far this is from being demonstrated; Descartes also knew it, since in epist. 67, tom. 1, he plainly admits that he cannot demonstrate that brutes lack a knowing soul. If one says that understanding is much superior to corporeal motion, that is precisely what remains to be demonstrated; and for this one must have recourse to the common arguments that we have just given.

11. The objections that can be made against the spirituality of the soul we have partly forestalled in nn. 7 and 8, and shall partly solve in the following chapter, namely those drawn from the fact that the soul is the form of the body. For the present it follows that the rational soul is not educed from matter, and therefore is not propagated by generation, that is, generated and transmitted with the seed, as some ancients thought, whose opinion St. Augustine condemns as error in l. *De haeresibus* c. 86, and St. Thomas calls heretical in Summa Theologiae I, q. 118, ar. 2. Therefore the rational soul is produced by God alone through creation; by God alone, I say, not by Angels, whatever some may have said, whose error is condemned by the Fathers of the Church cited by Fr. Oviedo, controv. 1, *De anima* punct. 3, n. 21, and is condemned by all Philosophy and Theology, which attribute to God alone the power of creating.

Some Points on the Concept of Body and Spirit in General.

12. In the course of proving that the rational soul is spiritual, it is customary to dispute about the concept that in general distinguishes a spiritual thing from a corporeal one; this dispute has been made lengthy by the variety of opinions and their reciprocal refutation. For some, 1º, place the concept of a spiritual thing in this, that by its nature it does not have extension of parts, or that it is integrally indivisible into extensive parts. Others, 2º, in this, that it is neither matter nor dependent upon matter in its being. Others, 3º, in this, that it is neither sensible nor must intrinsically adhere to a sensible thing. Others, 4º, in this, that it requires definitive existence in a place. Others, 5º, in this, that it intrinsically pertains to free choice. Others, 6º, in this, that it is not quantity nor inseparable from quantity; or, what comes to the same thing, that it does not intrinsically pertain to the impenetrable. Others, 7º, in this, that it intrinsically pertains to the capacity for understanding, or, what is the same, to the capacity for perceiving all things intentionally. The same authors explain the concept of body and of a corporeal thing by opposition. Of these opinions I judge the last two to be especially preferable. But to explain them, I note beforehand, 1º, that by the name "spirit" is properly and primarily signified an incorporeal substance, and one that is absolute, or non-modal. Hence only God, an Angel, and the human soul are called spirits absolutely; other things belonging to the spiritual order are called spiritual, or spiritual entities, by attribution, namely acts of understanding and willing, Grace, Faith, etc. I note beforehand, 2º, that by the name "body," mathematically understood, is meant quantity as three-dimensioned, or as extended in length, breadth, and depth; physically, however, it primarily means a substance to which quantity is perpetually due and in which it inheres. Other things that naturally depend in their being upon such a substance are called corporeal by attribution.

13. I say, therefore, 1º: spirit is rightly defined as "a substance naturally independent of body," that is, naturally capable of existing without body; spiritual by attribution, as "that which must naturally adhere intrinsically and exclusively to a spirit," namely in such a way that it does not at the same time adhere to a body; and finally spiritual, insofar as it abstracts from primary and attributive spirituality, as "that which by its nature belongs intrinsically and exclusively to a substance independent of body," belongs, I say, either by identity or by intrinsic adhesion. Body, however, is thus

defined: "a substance which by its nature requires quantity immediately inhering in it"; corporeal by attribution, "that which naturally requires intrinsically and perpetually to adhere to such a substance"; and corporeal, finally, insofar as it abstracts from primary and attributive corporeity, "that which naturally belongs to a substance which by its nature requires quantity, etc.," belongs, I say, either by identity or by intrinsic adhesion. The definition of body, upon which the others depend, accords with the authors of the sixth opinion reported in n. 12, which is sufficiently common in our School. It also accords with the mind of the Angelic Doctor, Summa Theologiae I, q. 18, ar. 2, c.; and with the mind of the Eximious Doctor, disp. 36, *Metaphysica* sect. 1, n. 12, where he says: "Corporeal substance must be defined: a substance capable of quantity." The definition of spirit also accords with common sense and ordinary speech; hence, to prove the spirituality of the rational soul, everyone employs as a middle term independence from body. Although this independence sounds like a negation, it sufficiently indicates the positive nobility and excellence of spirit above body, just as does the independence of God from creatures.

14. From the concepts given you will now infer, 1º, that prime matter of sensible things is properly called body, since it roots quantity and immediately receives it; likewise the whole composite of form and such matter, since it requires quantity inhering in it according to the matter; likewise a complete substance capable of quantity but simple, or not composed of matter and form, which according to many is possible. You will infer, 2º, that all substantial forms educed from matter are not bodies but corporeal, because they do not require quantity to inhere in themselves but in matter (see Disput. 2, *De generatione* n. 75 sqq.), to which they themselves must be intrinsically and perpetually united. Think the same of modes and qualities that must likewise adhere to matter either immediately or mediately. Hence, if heat were preserved by creation outside a subject, the creation itself would be corporeal, because it would have to adhere mediately to matter, as immediately adhering to heat, which even then would require union with matter. For although creation renders heat independent of a subject of sustentation, it does not therefore exclude the union naturally due even in the composite sense. Thus, if the human union were created, it would not cease to be bound to its extremes. Thus Grace, although in a probable opinion it is created, is nevertheless united to its subject by its own exigency. That matters occur otherwise with Eucharistic quantity does not arise from creation alone, but because God prevents the union by removing the subject.

15. You will infer, 3º, that the union of the rational soul with the body, although spiritual by connection, in which sense Fr. Suárez calls it spiritual, is entitatively corporeal, because it does not belong exclusively to spirit, since it simultaneously adheres to body. The same is to be said of the act of sensation, although it is received in the rational soul, for it is simultaneously received in matter. You will infer, 4º, that the action by which, according to many, a spiritual species is produced from a material phantasm is spiritual, because it depends on the phantasm as on an extrinsic agent, not as on an extreme of union or intrinsic adhesion. You will infer, 5º, that an essentially true intellection by which the rational soul sees itself united to body is not corporeal, because it is connected with the union to body only as its object, not as an extreme of due intrinsic adhesion, even mediate. For mediate adhesion is not said to be due unless something must immediately adhere to a thing that of itself adheres naturally to body, or adheres with natural inseparability. In this manner the rational soul, to which such an intellection is immediately united, does not adhere to body.

16. Finally, you will infer that quantity is not body in the physical sense, although it is in the mathematical sense, even though the name "body" was imposed from it. For, as St. Thomas often warns, one thing is that from which a name is imposed, another that which the name is imposed to signify. One may say: when corporeal substance is defined through an order to quantity, quantity is presupposed to be physically corporeal; therefore it has corporeity from itself. I answer by denying the antecedent, because corporeity of quantity is then prescinded from; and afterwards, once the concept of body has been established by that definition, quantity itself is proved corporeal from its inseparability from such a substance. If one asks what quantity is, I answer that it is an accident by which a subject is rendered naturally impenetrable with another thing affected by a similar accident; for we shall show in Metaphysics that the formal effect of quantity cannot be prescinded from impenetrability. Hence an indivisible point of matter can be called a body because it is impenetrable. But if one insists that extension of parts belongs to the concept of quantity, I shall say that a point is extended primordially because it is the beginning of an extended thing insofar as that thing is integrally divisible; and in the same primordial sense it is called a body.

17. From what has been said you will easily solve the objections against the established concept of body and spirit. It remains only to note that in fact corporeal means the same as material, just as immaterial means the same as incorporeal, because in fact there is no matter except corporeal, or quantified, nor any body without matter. Nevertheless, if, as some hold, a

complete simple body is not repugnant, or even spiritual matter, that is, an incorporeal or non-quantified first subject of substantial form, then there could be something corporeal and immaterial, and something material and incorporeal.

18. I say, 2º: spirit, or spiritual substance, can most aptly be defined as "an intellective substance," or, so that "intellective" itself may at the same time be defined, as "a substance capable of perceiving all things intentionally." Thus Frs. Quirós, Gaspar de Ribadeneyra, and others, whose opinion Fr. Peynado embraces as very probable, l. 1, *De anima* d. 3, s. 5, and confirms well by reason and the authority of Sts. Augustine and Thomas. Tosca likewise follows it with others, tr. 11, lib. 1, propos. 1. This definition, which must be understood of a purely intellective substance, or one intellective by reason of its whole, for man is not absolutely a spirit although he can be called an intellective substance, seems most apt, not only because it belongs to every spirit and to spirit alone, but also because it simultaneously discloses the excellence of spirit above body. For everyone conceives the power of understanding as an eminent perfection, so much so that the metaphysical essence of God is commonly placed in intellectuality or intellection. It is objected: according to St. Thomas, Summa Theologiae I, q. 14, art. 1, spirituality, or immateriality, is the reason for intellectuality, and the intellective is proved through the spiritual; therefore the concept of spirit is prior to the concept of intellective substance. Capreolus answers, as reported and approved by Fr. Suárez, disp. 35, *Metaphysica* s. 3, n. 21, that when the spiritual is called the reason for the intellective, "intellective" is not taken radically and insofar as it is an essential difference, for in this sense intellective and spiritual are formally the same, but is taken for the proximate faculty of understanding, which in some manner follows radical intellectuality. Certainly St. Thomas, Summa Theologiae I, q. 75, ar. 2, proves that the rational soul is incorporeal because it is intellective.

19. Consequently, spiritual by attribution is aptly defined as "that which must intrinsically and exclusively adhere to an intellective substance"; and spiritual, as abstracting from primary and attributive spirituality, as "that which by its nature intrinsically and exclusively belongs to an intellective substance," belongs, I say, either by identity or by intrinsic adhesion. By opposition the notion of body is to be explained through this, namely that it is "a substance primordially incapable of understanding"; or rather, so that the name "body" may belong also to a composite, even a human composite, "a substance identifying with itself, at least inadequately, a primordial incapacity for understanding." I call primordial that incapacity which belongs to prime matter, or to the substance immediately receiving quantity;

for from this substance all things that naturally depend upon it participate in the incapacity for understanding, and are therefore called corporeal.

20. The objections that can be raised here are solved from what was said in the preceding assertion. But against both assertions it will still be objected: there can be an act of intellect, certainly spiritual, that naturally, indeed essentially, adheres to quantified matter. Proof: if God decrees that every act of intellect be miraculously united to matter, and reveals this decree to Peter, who believes it by an essentially true act of faith, this act will essentially require union with matter; for it is essentially connected with its object and therefore with the fact that every act of intellect, and consequently that very act itself, is united to matter.

21. Fr. Peynado treats this objection at length, l. 1, *De anima* d. 3, s. 4, an objection also customarily brought forward concerning an innumerable merit, an indestructible creature, and other paradoxes. From his doctrine the brief answer is that such a decree is repugnant, as being pointless and unworthy of God, if it includes the essentially true act by which it is believed. For God would decree that an act be united to matter which by its own essence has to be united to matter, since that act of faith, by the very fact that it is included under such a decree, has by its own essence to be united to matter, as the objection proves. But this would be no less foolish than to decree that man, if he exists, be a rational animal, be a creature, be distinct from God, etc. It is replied: at least God can decree that no act separable from matter by its nature ever be separated from matter, and He can reveal this decree. Then: the act of faith by which that decree can be believed, if included under the decree, will by its nature be inseparable from matter, since it is intrinsically connected with its own union to matter; if it is not included, it will likewise be inseparable, because the decree includes every act separable from matter. I answer: the decree must positively exclude from its object the act by which it is believed, although that act is separable from matter, because if it does not exclude it, it entails contradictory predicates in it, namely that it be separable and inseparable. One may say: why can God not decree that no separable act whatever, with none excepted, ever be separated? I answer: He can indeed, but by two decrees, one of which includes the assent to the other; or even by one decree, provided that such a decree is not knowable by a creature through an essentially true act, but only through a natural act not of itself connected with its own truth. For just as an absolutely unrevealable decree is not repugnant, e.g. a decree to reveal nothing, or not to concur with a creature toward any act, so neither is a decree unrevealable in relation to an essentially true act repugnant.

The Rational Soul Is Indivisible.

22. This truth, if not expressly defined, is certainly proximate to the Faith, as Fr. Suárez says, l. 1, *De anima* c. 13, and is believed and defended by all Catholics, following the Fathers of the Church whom the same Suárez cites. First of all, that the human soul does not consist of essential parts, or is not constituted from spiritual act and potency, as some have imagined, manifestly follows from the fact that it is a true form of the body, as will appear in the following chapter. For by that very fact it is an incomplete substance ordered to inform a subject. But what is already constituted from substantial act and substantial potency cannot be substantially incomplete; nor can that which already includes a substantial subject inform another subject, otherwise one might just as well imagine that the whole man could be received in another subject. Indeed, with the Eximious Doctor, disp. 13, *Metaphysica* sect. 14, n. 14, I hold it truer that spiritual matter is repugnant, namely pure incorporeal potency capable of receiving a substantial form, whatever others may say whom Fr. Peynado cites and follows at length, l. 1, *De anima* d. 3, s. 7. I now prove this briefly: because that matter would be a spiritual substance, as is supposed, and yet on another ground it would not be one; because every spiritual substance, at least unless it is modal, is intellective, as Peynado concedes and as is evident from what was said in n. 18; but that matter certainly would not be intellective, since this perfection is wholly foreign to the concept of pure potency. Nor does it matter that such matter would be an incomplete substance. For this also belongs to the soul, which nevertheless is intellective because it is spiritual. Nor is the requirement of adhering to an intellective substance sufficient for the spirituality of a substance; for, as the same Peynado teaches, cit. disp. 3, num. 45, these terms, "spiritual substance" and "intellective substance," are convertible and mutually imply one another.

23. Next, that the rational soul is also integrally indivisible is usually proved from its incorporeity, and not without reason. For although this indivisibility does not belong to the notion of a spiritual accident, since Grace and the habits of virtues consist of degrees of intensity, and the presence of an Angel in divisible space may perhaps be integrated from parts, it nevertheless belongs to the notion of spirit, or spiritual substance; just as, although corruptibility is not repugnant to a spiritual accident, it is nevertheless repugnant to a spiritual substance. Certainly the Fathers of the Church think thus, since they prove that the human soul is a simple

substance from no other ground than that it is incorporeal; e.g. Gregory of Neocaesarea, l. *De anima*: "Since the soul lacks body," he says, "it is simple."

24. Fr. Peynado indeed holds with others, cit. disp. 3, n. 70, that a spiritual substance integrally composite is possible. But he is to be rejected, because either all the parts of that substance would be intellective, or only one. If the first is said, then all would be capable of free choice, and one could will what another did not will; consequently one could be in grace and another in sin, one could merit Heaven and another Hell, which is plainly repugnant in parts naturally integrating one substance. Nor may one say that all enjoy a common liberty and by sympathy will and refuse the same things. For a sympathy necessitating many to will the same thing is incompatible with freedom, as is known. But if the second is said, then that part alone will be spiritual, since spiritual substance is convertible with intellective substance according to Peynado. And concerning that part I ask whether it would necessarily be indivisible. If one affirms this, then a divisible spiritual substance is repugnant. If one denies it, then it would consist of intellective and free particles, and the recent absurdity returns.

25. Moreover, that a soul, or spiritual form informing an organic body, which is integrally composite, is repugnant can be proved specifically: because either its parts would require existence in distinct parts of the body or in the same part. If the first is said, then they would require extension and mutual impenetrability, and consequently would participate in the power of quantity and would be corporeal, like the parts of the form of fire or of a tree. If the second is chosen, then several parts of the same substantial form would require simultaneous existence in the same part of matter, which is unheard of even in Physics when plurality of forms is discussed; and it further entails, against the judgment of all, that substance is capable of intensity.

26. Finally, whatever be the case as to possibility, that the rational soul in fact is not integrally composite is proved because at least in fact it is certain that several parts of one divisible form are not in the same part of matter, but each is united to a corresponding part of matter. If, therefore, the spiritual soul is divisible, one part of it will be in the hand, another in the arm, etc. When, then, a man's hand is cut off, I ask whether that part of the soul perishes. If it perishes, then it depends upon the body, since it perishes from the failure of informative union; therefore it is not spiritual. One may say: that part perishes not from failure of a subject but from failure of continuative union with the other parts of the soul. Against this: if the continuative union is spiritual, it is not destroyed by the cutting of the body, because, since it is penetrable, it allows the knife to pass through without

injury. If, therefore, it perishes, it is corporeal, and consequently binds corporeal parts together. If one denies that the part perishes, I shall say that the part of the soul certainly does not remain in the now dead hand; nor is it withdrawn so as to inform the matter of another part, lest that matter be naturally informed at once by two parts of the soul. It will therefore remain without a subject and thus in a state of separation from the body, no longer in the wayfaring state but at the terminus, while the remaining parts of the same soul retain the state of union and of wayfaring. Consequently, if a just man loses his hand and afterwards sins mortally, one part of the soul will seek Heaven, another Hell, which is more than absurd. The objections against the simplicity of the soul, because they are drawn from its power of informing a divisible body, will more conveniently be solved in the following chapter.

The Rational Soul Is Immortal.

27. That the rational soul does not perish at the death of man but will endure eternally is an unshaken Catholic truth and the foundation of the whole Christian life. Almost every page of the Divine books bears witness to this truth, so that it would be superfluous to quote the testimonies here verbatim. Fr. Suárez indicates the principal ones, l. 1, *De anima* cap. 10. But it is asked whether this comes only from an undue benefit of God, willing perpetually to conserve the soul even though it be mortal of itself, or from the fact that the soul itself is immortal by its nature. Here, however, immortality is taken not for essential indestructibility, for thus God "alone has immortality," as the Apostle says, 1 Tim. 6, since every creature can be annihilated by God through withdrawal of the conserving influx, but for incapacity for corruption and cessation arising from any natural agent, and even from God if He wills to proceed according to the natures of things, as He is in fact supposed to will unless He reveals otherwise. In this sense, that our soul is immortal by its nature is also a Catholic truth, as Fr. Suárez says loc. cit. n. 9 and 12.

28. For besides the fact that this is sufficiently gathered from certain passages of Scripture, such as Eccles. 12 and Matt. 10, the Lateran Council under Leo X expressly declared the matter, sess. 8, saying: "Since in our days some have dared to say concerning the nature of the rational soul that it is mortal, and some rashly philosophizing assert that this is true at least according to Philosophy, with the approval of the sacred Council we condemn and reprove all who assert that the intellective soul is mortal." From this oracle of Faith it is established that the immortality of the soul

can be shown not only theologically but also philosophically, and that it is founded in the nature of the soul itself, as the holy Fathers likewise found it, cited by the Eximious Doctor nn. 11 and 12. It is therefore shown, 1º, because the rational soul is a spiritual substance and wholly simple, both essentially and integrally, as we have already shown; therefore it is independent of body and of every subject of sustentation, incapable of every division, and creatable by God alone; therefore it is incapable of corruption, since corruption is nothing other than either the dissolution of the parts of a composite being, or the failure of a form while the subject of sustentation remains, or the cessation of a thing by its nature generable; therefore it cannot be destroyed by any natural agent, because its destruction would be annihilation, and this surpasses the powers of every created cause, just as creation does.

29. Moreover, it is not natural to the soul that it should be annihilated by God alone; rather, perpetual conservation is connatural to it, or at least its contrary would be preternatural. Proof: to endure perpetually is without doubt a good of the soul, and is not naturally impossible, since it is contrary to no natural right; therefore it is desired by the soul through an innate appetite, since there is no other rule of innate appetite; therefore it cannot be denied by God except against, or beyond, its exigency. The objection is urged: a created substance naturally requiring perpetual duration is not repugnant, for it would still be subject to God's dominion, since He could annihilate it at will, just as fire is subject to Him in burning and the sun in illuminating. Such, therefore, is the rational soul, in which is found everything that can be conceived in another substance as grounding such an exigency.

30. It is shown, 2º, because by the natural light it is established that God exercises providence over human affairs and that it belongs to Him as the most just Governor to appoint fitting punishments for the wicked and rewards for the good. Since in the present life rewards and punishments are not ordinarily distributed to men according to their merits, for everywhere we see the just oppressed by hardships and the impious abounding in temporal goods, by the natural light itself it is inferred that another life remains for our soul when freed from the body, in which fitting retribution is to be hoped for or feared. This argument is greatly commended by the holy Fathers and even by pagan Philosophers, as cited by Fr. Suárez, cit. cap. 10; indeed it is indicated in various passages of Scripture, as the same Suárez shows, n. 29. And without doubt it is most efficacious. For who would not judge it absurd that God should so constitute the Commonwealth of the Universe that the condition of virtue is miserable while that of wickedness is

happy? The Apostle inferred this as a great absurdity, 1 Cor. 15, saying of himself and the other faithful of Christ: "If in this life only we have hope, we are more pitiable than all men." Nor may one say that from this it is proved only that the soul lives for some time after the death of man, not that it endures eternally. For against this is the fact that, if the soul does not perish through the failure of the body, there is nothing from which it could perish; for outside the body it neither has a contrary nor can it lack a conserving cause, nor is there any reason why it should endure for a year rather than for eternity. Hence no one has denied the immortality of the soul without also believing that it needs the body in order to exist.

31. Nor again may one say that virtue and vice are respectively their own reward and punishment, because virtue delights the soul while vice torments it. For this is rejected, 1º, because the government of a commonwealth would be wholly improvident if it proposed no other incentive for observance of the laws than observance itself, and caused nothing else to be feared for transgression than the transgression itself. 2º, because delight of the soul is not a reward but a certain natural property of virtue, and one greatly mixed with labor. 3º, because vices often delight more than they torment, especially the most wicked men, in whom there is scarcely any remorse of conscience. 4º, because this remorse is founded upon the fact that the soul secretly fears future punishment. For if the whole happiness and punishment of men ends with the life of the body, there is no reason why conscience should not judge rightly done whatever conduces to the pleasures of this life. 5º, because the eminent act of fortitude, which is to die for one's country, causes no delight in the soul while it is being consummated if it wholly destroys that very soul.

32. And from this an excellent argument is drawn for the immortality of the soul. For that act of fortitude is a virtue, as is established by the natural light; but virtue is "a disposition of the perfect toward the best," insofar as it disposes the subject to attain happiness, in which it is most perfectly disposed; therefore that act does not destroy the soul, for thus it would remove from the subject all happiness and all hope of it. To this pertains the fact that the light of nature dictates, even to pagans, that virtue and moral goodness are to be preferred to the life of the body. But if the soul does not survive, the very light of nature will be contrary to the rational soul, since it will often persuade it to cast away all goods together with its own existence. For brevity I omit other proofs, which may be seen in Fr. Suárez l.c. Certain objections, however, must be solved.

33. It is objected, 1º, from Eccles. cap. 3: "One destruction is that of man and of beasts, and the condition of both is equal. As man dies, so do they die. All breathe alike, and man has nothing more than the beast." These words

seem to signify that the soul of man, just like that of the beast, dies with the body. At least this is left in doubt when it is added there: "Who knows whether the spirit of the sons of Adam ascends upward, and whether the spirit of beasts descends downward?" It is objected, 2º, from the Sixth Council of Constantinople, which act. 14 approved the opinion of Sophronius teaching that the soul is not immortal by nature but by grace. 3º, the rational soul is an incomplete substance naturally ordered to inform the body; therefore outside the body it will be in a violent state. But nothing violent is perpetual. 4º, the soul in operating depends on corporeal organs and accidents; therefore also in being; therefore it cannot exist without the body. Confirmation from the poet Lucretius: the soul is born with the body and with it grows up and grows old; for when the body is shattered by age, "the intellect limps, and tongue and mind rave." The same Poet, himself truly drunk and certainly unsound, takes an argument from drunkenness, which disturbs even the mind and soul. Hence he concludes that the soul, as subject to the disturbances of the body, dies with the body. These points, however, are easily answered.

34. To 1º: Solomon speaks there of the destruction of the body, or of man in the being of the composite, as St. Jerome explains; or rather, as St. Thomas interprets, Summa Theologiae I, q. 75, ar. 6, ad 1, he speaks in the person of the wicked reasoning thus so that they may indulge the body more freely. This interpretation is confirmed from Wis. cap. 2, where the reasonings of the wicked against the immortality of the soul are more expressly proposed and are refuted in the same chapter and in those following. Likewise the words, "Who knows, etc.," are not those of one doubting, but of one reporting the doubt of the wicked; for the same Ecclesiastes steadfastly affirms, cap. 12, v. 7, that the spirit of man returns to God who gave it. To 2º: only the soul's immortality "by nature" is denied there, that is, by essence and independently of the influx and choice of another; and immortality "by grace" alone is asserted, that is, through the free will of God, who can reduce the soul to nothing even though naturally immortal; or "grace" is taken radically for the first creation, which was gratuitous and not owed, although, once it is presupposed, perpetual conservation is naturally owed to the soul.

35. To 3º: that incompleteness and ordination do not prevent the soul outside the body from exercising most noble operations; hence the state of separation is not violent to it, at least properly and absolutely, as we shall say in the last chapter. To 4º: in operating intellectually the soul does not depend upon any corporeal accident or organ except inchoatively, or as upon something merely ministering the first species (see above n. 8), which is not

sufficient for dependence in being. It does indeed depend upon the body as regards the operations of sensing and vegetating; but to prove that its being is independent, it suffices that it naturally has some independent operation, for this cannot be of a higher order than the power and substance from which it arises. To the confirmation: we forestalled and refuted that argument above, nn. 7 and 8. Nor is it true that in the aged, provided they are not decrepit, the intellect, or vigor of reason, limps; rather the opposite occurs, as we also noted in n. 7.

CHAPTER II.
Whether, and to What Extent, the Rational Soul Informs the Body.

36. It must be held absolutely that the rational soul is both a spirit and a soul truly so called. Thus far we have shown that it is incorporeal, simple, and immortal, which are proper predicates of spirit. It remains to prove that it is a true soul, or a true form of the human body, which everyone knows to be organic, and at the same time to show to what extent it exercises this office.

The Rational Soul Truly Is the Form of the Body.

37. This assertion was defined at the Council of Vienne under Clement V, in Clement. unic. § "Porro" *De summa Trinitate*, whose words are given by Fr. Suárez, lib. 1, *De anima* c. 12, expressly stating that the rational, or intellective, soul is the form of the human body "truly, through itself, and essentially." The same definition is embraced by the Lateran Council under Leo X, sess. 8. The contrary error is attributed to Plato and other ancients, among whom the rational soul is not substantially united to the body so as to constitute one substantial nature, nor is it its form except in a broad sense, namely a merely assisting form, governing and moving, as an Intelligence moves the heaven, a charioteer a chariot, a helmsman a ship. Nor will the doctrine of the recent Atomists, which Tosca explains and maintains concerning the constitution of the human body in the being of a vegetating and sensing thing, and concerning its union with the rational soul, easily be freed from this error, though I speak without attaching a censure. You have this doctrine set forth and attacked precisely on this ground in the preliminary Dissertation to Physics, nn. 26 and 27.

38. The assertion is proved philosophically. First, the intellective soul belongs to the essence of man. No man will deny this unless he considers

himself irrational and brute, or unless he does not experience that he is the one who understands and judges, reasons, wills, uses free choice, etc. Next, the body also belongs to the essence of man. No one likewise will deny this unless he considers himself wholly spiritual, ungenerable, and incorruptible, or unless he does not experience that he is the one who vegetates and senses. Therefore the intellective soul is substantially united to the body. The consequence is evident because man is one in himself, certainly no less than a horse and other natural composites; therefore he consists of parts substantially united. Otherwise he would be one by accident and no more one than the heaven with its moving Angel, or an aerial body with a demon assuming it, or a horse with its rider. Moreover, there can be no formal term of human generation other than substantial union. There is further the evident connection, or fellowship, of soul and body in operating; for the soul naturally perceives the impressions and motions of the body, and in the state of union it cannot understand without the corporeal operation of imagination. Such a connection is nowhere found between two supposita accidentally united. But if the soul is substantially united to the body, it is united to it precisely as a true form of the body, since it is the nobler part, the first root of operations, and the principal physical difference of the resulting composite.

39. Some have thought that the rational soul is united to the body not insofar as it is rational, but only according to the grade of substantial, vegetative, and sensitive form. But this opinion, attributed to Cajetan, must be wholly rejected, because the distinction of grades of the same soul is a work of reason and does not pertain to real union, which cannot separate one from another among grades really identified. Moreover, it would follow that man, insofar as he is one composite in itself, is not rational and does not differ from a brute; for if the soul's rationality is not united to the body, it does not belong to the constitution or essence of the human composite. Add that we experience not only that we are the ones who sense, but also the ones who reason. See St. Thomas, Summa Theologiae I, q. 76, ar. 1.

40. But against the established assertion it is objected, 1º: between act and potency proportion is required; but there is none between body and spirit. 2º, a spiritual accident cannot naturally be united to body; therefore neither can a spiritual substance. 3º, the soul does not give rational being to the body; therefore it does not communicate itself to it. 4º, the soul does not desire matter, since it desires the operation of understanding, which matter impedes. 5º, if the soul were a form, it would be capable of two states, union and separation, which, being contrary, would not both be connatural; and yet

neither would be violent: the first because naturally due, the second because perpetual.

41. I answer to 1º: between act and potency no proportion other than incompleteness and mutual unitability is required, by virtue of which they can come together into one composite nature and mutually assist one another in operating. This is in no way repugnant between body and spirit; and on the other hand it is proved to exist by experience, whereby we simultaneously know our being and sensing and understanding, and that corporeal operations serve the spiritual operation. To 2º, I answer by denying the consequence, because if a spiritual accident were united to a body it would depend upon it, since an accident depends upon its subject, and by this very fact would lose spirituality. But this reason does not apply to a spiritual substance. To 3º: it suffices that the soul give rational being to man, to whom it communicates itself by identity; to the body, however, taken incompletely, it is communicated only by information, which does not transfer the denominations of the form to the subject except in the case of an accidental form. To 4º: matter does not impede the operation of understanding except as regards the more perfect mode proper to the separated soul; this mode is compensated by the operations of sensing and vegetating, which the soul also desires and cannot elicit without matter. To 5º: both those states are natural in successive order; concerning this again in the last chapter.

42. From the fact that the rational soul is the form of the body, various errors are now easily rejected. 1º, the error of Averroes, who maintained that there is one intellective soul, or one intellect, in all men. This error was condemned at the Lateran Council under Leo X, sess. 8, and is attacked philosophically both because no form naturally informs several discontinuous subjects at once, and because it would follow that all men understand the same thing. See St. Thomas, Summa Theologiae I, q. 76, art. 2, and often elsewhere. 2º, the error of Origen that the rational soul is of the same species as an Angel. It is attacked by St. Thomas, Summa Theologiae I, q. 75, art. 7, and in *Quaestiones disputatae de anima* ar. 7, and is sufficiently rejected from the fact that an Angel is not the form of a body and has a simpler mode of understanding. 3º, the error of the Priscillianists, which was also Origen's, namely that all souls were created at the beginning outside the body and in that state committed crimes, as punishment for which they are enclosed in bodies as though in prisons. It is condemned by Leo I, epist. 71, ad Turib. contra errores Priscillianist., and by the First Council of Braga, can. 6; and it is sufficiently rejected from the concept of form, which, since it exists for the sake of the composite, must naturally be produced together

with union to its subject. Add that it is most ineptly called a punishment for sin to be in that state to which the soul is naturally ordered and in which it has no consciousness or memory of the sin committed. 4º, the error of Pythagoras concerning the transmigration of souls from body to body. This delirium is not only against Faith but against experience, for no soul remembers having previously lived in another body. Everyone is also persuaded by nature that a new soul is infused into a new fetus and that a form, even an immaterial one, cannot suddenly leap from one adequate subject into another.

The Rational Soul Exists in Every Part of the Organic Body.

43. This is the common opinion of Philosophers and Theologians, as cited by Fr. Suárez, l. 1, *De anima* c. 14. Some ancient Philosophers held the contrary, some locating the soul in the head, others in the breast, others in the heart as in its proper seat. Descartes imitates them, locating the rational soul only in that little part of the brain called the conarium, or pineal gland. But the stated assertion is easily proved, because every part of the organic body is animated, or has a soul existing and united within it; for it is organized precisely so that it may be a suitable subject of the soul. Otherwise it would follow that not only the soul but another form along with it is the first act of an organic body potentially having life; it would also follow that hands and feet are of themselves dead or inanimate members. But in the human body there is no soul other than the rational soul, as we saw in the preceding disputation; therefore this soul exists really united in every part, etc. Moreover, feet and hands operate immanently by sensing and vegetating; therefore they contain in themselves an intrinsic principle of vital operations, and consequently a soul. But if this is not the rational soul, it will be another corporeal soul, certainly continuatively united with the rational soul, because the hands and feet are continuous with the rest of the body. From a corporeal and an incorporeal soul, therefore, there would result in man one total continuous soul, which is both unheard of and absurdly entails that the human soul is absolutely divisible and partly material, partly spiritual.

44. From this doctrine you will infer that the rational soul is whole in the whole body and whole in each of its organic parts, as St. Augustine expressly teaches, l. 6, *De Trinitate* c. 6; for an indivisible soul, wherever it is, is whole. I call organic those parts that have a figure and disposition suitable for some vital operation, at least vegetating. The soul is nevertheless said to be whole in each member by totality of entity, not by totality of power, at

least as proximately ready for exercise. For diverse operations it requires diverse organs, which are not found in every part of the body. Hence it exercises the visual power only in the eyes, the auditory in the ears, etc.

45. It is objected, 1º: if the whole soul is in each member, it follows, 1º, that a finger will be a man; 2º, that the intellect will be in the foot; 3º, that the soul will be bilocated or multilocated; 4º, that the whole soul will be moved simultaneously by contrary motions, or will simultaneously be moved and at rest, if, namely, one hand is raised while the other is lowered or held still. I answer that all these consequences are of little weight. The first consequence equally presses the adversaries, because neither the heart alone, nor the head alone, nor the pineal gland alone is called a man. It must therefore be denied by all, because "man" is the name of the whole subsisting in itself in human nature; hence it does not belong to a finger or another member, which has a soul precisely because it is a part and, by the very fact that it ceases to be a part, loses the soul. The second is granted without absurdity, at least if the intellect is not distinguished from the substance of the soul. The soul is nevertheless said to understand in the head because there is the organ of imagination, which ministers species to the intellect. The third is likewise granted concerning bilocation with respect to inadequate places, not adequate ones. See disp. 1, *De generatione* n. 69. The fourth is likewise to be granted concerning motions by accident, as St. Thomas grants, *Quaestiones disputatae de anima* ar. 10 ad 12, by the example of one walking in a ship against the ship's course. Therefore the soul, since it is moved by accident, or consequentially, when the body is moved, can follow contrary motions of distinct parts of the body; for there is no contradiction in this, nor such difficulty as would exceed the perfection of a spiritual substance. Yet it must not be granted that the soul is simultaneously moved and at rest absolutely, but only that it is moved here and not there. Others, supposing the soul's presence throughout the whole body to be indivisible, say that at the motion of the hands the soul is not moved simultaneously by contrary motions, but acquires a new presence corresponding to the whole body.

46. It is objected, 2º, from Descartes: if the soul were in the whole body, it would be extended and therefore corporeal, since extension belongs only to body. I answer: Descartes too must solve this, since it is certain that the pineal gland is divisible and extended. If on this account he locates the soul in one indivisible point of that gland, it follows that the soul is not the form of an organic body, since in a point there are no organs; indeed, that it is not even the form of a body, because an unextended point is not a body according to Descartes, who places the essence of body in actual extension.

Moreover, the Cartesians must be asked whether the immensity of God is extension. If they affirm it, then incorporeal extension can exist. If they deny it, then a Spirit can be really present in extended space without extension. Thus the soul is penetrated with the whole body and is substantially present to it; yet its presence, since it is definitive and penetrable, and is not the position of one part outside another, is not properly extension, or at least not corporeal extension. It is objected, 3º, from the authority of Aristotle, l. *De motu animalium* c. 7, teaching that it is unnecessary for the soul to exist in every member, but only in one principal member from which it moves the rest, which elsewhere he signifies to be the heart. I answer: Aristotle speaks of the soul's existence as regards the office of producing the vital spirits upon which the movement and life of all members depend; or certainly he does not speak according to his own opinion, since in l. 1, *De anima* c. 90 sqq. he clearly teaches that there is one soul in the whole body. See more in St. Thomas, *Quaestiones disputatae de anima* ar. 10.

The Parts of the Body That Are Informed by the Soul, or Animated, Are Enumerated.

47. From what has been said it is established that those parts of the human body are animated in which some vital operation arising there is found, even if it be mere vegetation. It must now be seen which those are, not by enumerating members as wholes, such as the head, breast, heart, feet, hands, etc., in which life is most manifest, but their various parts or appendages. I assert, 1º, that flesh, veins, nerves, tendons, membranes, and other related things are truly animated. This is evident from their power of sensing and vegetating. I assert, 2º, that bones also are animated. Everyone also grants this; for although bones do not sense, which itself is uncertain, they undoubtedly vegetate, or are nourished by internal reception, as is evident from their cavities, which are full of marrow destined for their nourishment; and also from the fact that from infancy they grow proportionately in every direction. They cease to grow after the twenty-fifth year of age because they have then reached their due magnitude, and thereafter they admit only as much matter as they acquire through nutrition. Both assertions also hold in brutes.

48. I assert, 3º, that teeth and nails are animated. Concerning teeth this is the common opinion with Aristotle, l. 1, *De generatione animalium* c. 4. It is easily proved, both because the nature of tooth and bone is the same, and because teeth are properly nourished by food internally received through small veins and fine channels with which they are naturally endowed. Nor

does it matter that they fall out of themselves, as though not continuous with the jaws. The same thing happens to the leaves and fruits of trees, which without doubt are animated; and it arises because some harmful humor ruptures the small fibers, or nerves, by which the teeth are bound and continued to the jaws. Whether teeth feel pain in themselves, or whether the pain exists only in the small nerves or membranes adhering to the roots of the teeth, is a doubt that does not concern us. It is sufficient that they are vitally nourished. Many deny that nails are animated; but most affirm it with St. Thomas, in 4, d. 44, q. 1, ar. 2, quaestiunc. 2, ad 3, and rightly, because the same reason applies to nails as to teeth; for they grow proportionately in every direction and draw humor through small veins. One may say: if two points are marked on a nail, they always appear at the same distance from one another. I answer: this is false in children, whose nails increase according to all dimensions; in adults, however, it is true because their nails no longer grow in breadth, lest they harm the fingers. This assertion is likewise to be understood of the horns and hooves of beasts, the scales of fish, and the beaks and feathers of birds.

49. I assert, 4º, that hair also is animated. Thus holds the more common opinion with St. Thomas loc. cit., which affirms the same of the mane, bristles, hairs, and wool of brutes. It is proved both because all these things stand in animals just as fronds and leaves stand in trees, and these undoubtedly live, and because cavities full of humor are observed in hairs through the microscope, as are also certain small branches like shoots of plants. Nor should this seem incredible, since no one fails to recognize vital organization in the legs of spiders and gnats. Add, 1º, that if hairs grew only by juxtaposition of matter, as the adversaries maintain, they would first turn white at the root rather than at the extremity, since senile matter is added only at the root; but the consequence is contrary to experience. Add, 2º, that cut hairs gradually become pointed at the extremity and consequently grow with respect to that part, which cannot occur except by internal reception. Add, 3º, that otherwise it cannot be explained how some have turned wholly white within the space of one night, which is reported to have happened more than once.

50. It is objected, 1º: hairs need frequent cutting and have no determinate limit of magnitude. I answer: vines too need pruning, although their shoots certainly live. Yet if hairs were allowed to grow as much as they can, they would not increase beyond a determinate limit, as commonly happens with eyelashes and eyebrows. Think the same of nails and teeth. It is objected, 2º: hairs separated from the body retain the same accidents for a long time. I answer: they retain many, just as cedar wood does for a long

time after separation from its vegetative soul; but not all, because they lose heat and moisture together with the nutritive juice. It is objected, 3°: hairs are superfluous appendages, or useful for no function of life, whence Aristotle calls them excrements; they also grow when the animal body diminishes, as in the aged and sick. I answer: they are useful for ornament and covering, especially in brutes, almost as leaves are in trees; they also exercise a certain function of life when they nourish themselves. They are called excrements because they are nourished from a more impure juice, which in relation to that by which the rest of the body is nourished is excrementitious; and because such juice abounds more in the aged and sick, who digest foods less perfectly.

51. There are some who say that hair, nails, and teeth are animated, not by the principal soul of the body, but by another purely vegetative soul. In brutes, which consist of a divisible soul, this is true provided that the soul of the hair is united with the other parts so as to constitute one total soul of the whole body. In man, however, it cannot be admitted, because the absurdity mentioned above, n. 43, would follow. Unless perhaps one says that nails and hairs are not continuous with the human body but only attached and bound to it. This is said without foundation and gives occasion for saying the same of the bones, indeed even of the flesh, if the rational soul is placed only in the nerves. It must therefore be held that in man hairs and nails are informed by the rational soul, as St. Thomas expressly teaches loc. cit. above n. 48. Nor does it matter that there he explains only the soul's vegetative power. For it need not exercise all its powers in each part of the body, but only according to the mode of their organization, as is evident in the powers of seeing, hearing, etc. Nor is it absurd, as some object, that the rational soul should float in the beard and hair of the head. For it also creeps in the feet and receives excrement in the belly, yet this is not considered incongruous. It is objected: in a corpse the nails and hair usually grow; therefore they retain a soul of their own after the rational soul departs. The antecedent can be denied with the common opinion, because hair and nails do not grow in a corpse but protrude farther beyond the flesh, which contracts through dryness. It may also be said that just as worms are generated from a corpse, so perhaps some purely vegetative soul is generated that animates the hair and nails again.

CHAPTER III.
Whether the Blood Is Animated.

52. There remains the more difficult question concerning the animation of the fluid parts of the human body, which is disputed chiefly concerning the blood, from which the conclusion is extended to the other humors. The first opinion animates the blood. Many Thomists hold this, such as Cajetan, Báñez, John of St. Thomas, the Carmelite Complutenses, and the College of St. Thomas at Alcalá. These authors, however, distinguish two kinds of blood, and indeed substantially different in species, as the College of St. Thomas testifies, l. 2, *De anima* q. 2, n. 50: one "perfect," or perfectly digested, which alone they maintain to be animated; the other imperfect, which they call inanimate and "nutrimental," because it serves only for nourishment, although man is also nourished from perfect blood, which these authors do not deny, while at the same time this blood has the office of a part in the human body. The same opinion, as regards the animation of blood, is held among Ours by Toletus, Hurtado, Arriaga, Oviedo, Quirós, Lynze, and others. The second absolutely denies that blood is animated. This is defended by the Scotists with Scotus in the places cited by Mastrius, disp. 1, *De anima* n. 116; likewise by our Suárez, l. 2, *De anima* c. 5, and tom. 1, in 3, p. d. 15, s. 6, and with him by most of Ours, such as Frs. Vázquez, Rubius, Lugo, Compton, Alphonsus, John Baptist de Benedictis, Peynado, and Ulloa. Capreolus, Soto, Aguirre, and other Thomists likewise defend it, as do physicians with Galen, l. 4, *De usu partium*.

53. Since neither opinion is proved sufficiently efficaciously by reason, the negative, which has greater authority and is manifestly gathered from St. Thomas, Summa Theologiae I, q. 119, ar. 1, ad 3, and III, q. 31, ar. 5, ad 1, is to be embraced by us. It is proved, 1º: blood elicits no vital operation; therefore it is not animated. The consequence is commonly granted, and against some who attempt to evade it it will be strengthened below, n. 58. Proof of the antecedent: blood does not vegetate or properly nourish itself; therefore it elicits no vital operation, for no one in fact concedes to corporeal things the power of sensing or understanding without the power of vegetating. Proof of the antecedent: vegetation, or vital nutrition, is not elicited where there is no fixed and regular internal reception of nourishment. This certainly cannot exist where there is no organization of fibers, veins, other channels, or pores continuously adapted, through which nourishment received internally may be distributed to all portions of the living thing with due

proportion. But in blood there is no such organization; therefore blood does not vegetate, but is increased in the manner of liquids by juxtaposition and addition of new blood generated by the heart or liver and poured into the veins. Proof of the minor: the very nature of a liquid, especially one continually flowing, for I presuppose the circulation of the blood, which almost all moderns regard as indubitable, and often boiling, does not admit such organs. For frequent interchange of particles and frequent alteration of continuative union would disturb pores and break veins and fibers. Hence no organization in blood has hitherto been observed; for those things resembling fibers sometimes noticed in extracted and cooled blood are masses of serous humor separated and coagulated by cold, as is known to physicians.

54. One may say, 1º: the formation of blood is a vital operation, as we said above, disp. 1, n. 39; therefore blood is vitally increased, or nourished. I answer by distinguishing the antecedent: it is a vital operation of the blood itself insofar as constituted from its own matter and form, I deny; it is vital to man, who includes blood together with his other parts, I grant the antecedent. Then I distinguish the consequence: it is vitally increased by the proper vitality of man, I grant; by the proper vitality of the blood itself, I deny the consequence. The formation of blood is vital to man, or to the composite, because in relation to him it has sufficient immanence according to what was said in disp. 1, n. 13. For it is elicited by one part of man, namely by the soul insofar as it informs the heart or liver, and is received in another part of man, namely the blood, which is also a part of man, as I shall presently say. Hence man is vitally nourished by the formation of blood, because he increases himself from within according to some part of himself, drawing matter through the organs of the chyle as far as the liver. But in relation to the blood it is not a vital action, even in the sense in which individual members, or integral parts, insofar as constituted from matter and form, namely the head, hand, foot, etc., or even flesh, nerve, bone, etc., are said to act vitally, because it does not arise from within the blood or from its form or intrinsic power, but from the soul residing in other matter. Certainly all who maintain that blood lives or is vitally nourished say that its form is a soul.

55. One may say, 2º, from the College of St. Thomas: for blood to nourish itself vitally it is not required that it have veins and pores; for these belong to the whole living composite, not to each individual part. Hence veins and pores are nourished from within without themselves having other veins or pores. But this is against common philosophy, which distinguishes the nutrition of living things from the accretion of inanimate things precisely in

that the former, unlike the latter, must of itself occur through internal reception. This undoubtedly requires pores, veins, or other passages by which the nutritive juice is drawn intimately within and distributed in every direction. From these passages, therefore, the proper organization of nutrition, or vegetation, is constituted. Hence, just as it would be absurd to say that blood sees or hears although it lacks organs of vision or hearing, on the ground that these belong to the whole living thing and not to individual parts, so must we judge in the present matter. That pores do not need pores, nor veins veins, what wonder is there, since they themselves are organs or constituents of organization? Likewise an action does not need an action, nor location a location. Will one therefore infer the same of other things? Nor may one say that blood is also an organ because it is an instrument assisting all the parts in vital functions. For this would be just as if one called the air passing through the pipes of a pneumatic organ an organ. On this account blood is no more an organ of vegetating than of seeing, imagining, etc.

56. One may say, 3º: blood has some vital operation, namely local motion from within, when in shame it rushes to the face, in fear to the heart, in anger it boils, etc. But this proves, contrary to everyone, that tears, sweat, and saliva are also animated, since they are often moved by various affections. Moreover, according to common philosophy locomotor life, if it truly and formally is life, is nowhere found without sensitive life, and scarcely anyone recognizes this in blood. Therefore those motions are not vital, but are caused in the blood by various movements of animated parts, or, as others hold, by sympathy, or the natural subordination of blood to the affections of the soul.

57. One may say, 4º: although blood has no vital operation, it does not therefore follow that it is not informed by the soul according to the grade of the form of corporeity or mixture. For just as the soul does not communicate the sensitive grade to every part of the body, but to some only the vegetative, so it can communicate to others only the grade of a mixed body. This doctrine, which some adversaries suggest, if it means that the soul is really united to blood according to only one grade and not according to all, is contradictory; because, since all grades are really identified in the human soul, it would follow that the same reality is united and not united. But if it means that the whole soul is united to blood, yet does not there exercise the power of operating vitally, but only the power of constituting a mixed body, not generically but in the species and individual of a mixture belonging to the integrity of the human body, in this sense I admit that it will not easily be refuted, at least *a priori*. For whatever is objected will have

a parallel instance in the communication of the vegetative grade without the sensitive.

58. Nevertheless it must be rejected, 1º, because blood is not continuous with the other parts of the body, as I shall presently say; but no form can naturally be united to discontinuous parts. 2º, because the absence of every vital operation, especially when founded upon organization either wholly lacking or unsuitable, is regarded as an evident sign of the absence of a soul, as is evident in corpses and aborted fetuses. Indeed, to use the adversaries' example, just as the human soul first communicates to the fetus the vegetative grade before the sensitive, or certainly the latter before the rational, so it could before all these communicate the grade of a mixed body. Hence an aborted embryo would have to be baptized although it showed no sign of life. The same sign is also regarded as evident in parts not separated from a living body. For a hand in a man, or a branch in a tree, by the very fact that it wholly dries up and is deprived of every vital action, is judged by all to die and to be deprived of its soul. 3º, because blood, if it receives no grade of life, will not be vivified and therefore will not be animated, although it is informed by a soul. But this, although some swallow it by force of the consequence, appears sufficiently absurd and repugnant from the very terms, namely that something should be informed by a soul and yet not be living or animated, but inanimate. It must therefore be said that it is wholly contrary to the nature of soul, as is evident from its definition, or at least from common sense and experience, to inform any body, even a partial body, without rendering it organic, or potentially having life, at least as that by which, or constitutively, to meet the objection from an indivisible point of flesh, and consequently capable of operating vitally in some genus, although the soul need not exercise its entire power everywhere.

59. The negative opinion is proved, 2º: blood is the nourishment from which man and every animal are nourished, as all physicians and almost all Philosophers assert with Aristotle, l. 1, *De generatione animalium* c. 4, and very frequently elsewhere; therefore blood is not animated. The consequence is evident because nutrition is the conversion of nourishment into the substance of the nourished thing, and consequently imports a transition of matter from one form to another. This cannot stand if the form of the nourishment is supposed to be the very form of the living thing. Some answer, 1º, that nutrition from blood is not a substantial conversion but a mere change of accidents, and that it is not repugnant for one part of a living thing to be nourished from another part that is likewise animated. But against this: it overturns the concept of nutrition, which everyone calls a conversion of the substance of nourishment into the substance of the

nourished thing and an action by which a living thing increases or restores its own substance. Otherwise, when a man from within expels harmful cold or other morbid qualities from his own hand by substituting others connatural to himself, he would be said to convert the hand into himself and to be nourished from it.

60. The College of St. Thomas with other Thomists answers, 2º, that when flesh is nourished from blood there is a substantial conversion that is a transition, not from form to form, but from the same form imperfectly participated according to the vegetative grade to the same form, or soul, as participated also according to the sensitive grade. But against this: if the discussion concerns grades of the soul as regards substance, it is repugnant for one to be in the blood without the others, as we saw in n. 57 and as the same College teaches, l. 2, *De anima* q. 2, n. 56. But if the discussion concerns grades as regards the exercise of power and corresponding organization, that conversion is merely accidental, since it adds nothing substantial but imports only a change of accidents. Add that such a conversion does not remove the term from which, namely the vegetative grade, and consequently is not truly a conversion.

61. Others answer, 3º, that for the nutrition of flesh from blood it suffices that there be a conversion between forms of corporeity, which also belong to the substance of man and are diverse in blood and flesh. But against this: the Scotistic form of corporeity displeases almost all the adversaries; and if perhaps it exists, the soul is naturally united to it as to its proximate subject. But it is repugnant for the soul to intend through itself to destroy the subject to which it is connaturally united in the blood, for it would destroy the very thing that it desires innately. By the same reason others must be attacked who have recourse to heterogeneous unions. Likewise others who say that blood is not immediately converted into flesh, but first into dew, then into cambium, afterwards into glue, for they posit these as inanimate substances, and finally into flesh. This doctrine from another ground also coheres badly with the animation of blood. For what purpose would the soul vivify blood which it itself through itself and by extension is going to kill and change into dead liquids? This would certainly be contrary to the right order of nature, to regress from more perfect things to less perfect ones and, once the end is attained, to return again to the means.

62. Fr. Quirós answers, 4º, disp. 77, n. 8, simply denying that blood is the nourishment of an animal. 1º, because blood must be restored to the blessed in the resurrection, although they do not need nourishment. 2º, because otherwise the nutritive power, since it is a necessary power, would convert all the blood into the substance of man, just as fire converts applied tow into

itself. 3º, because although a man abounds in blood, he does not on that account need external food less, nor does he feel hunger less. But against this: this doctrine is singular and contrary to the consensus of all Medicine and Philosophy; nor do Cajetan and the other Thomists who distinguish two kinds of blood favor it, as we noted in n. 52. Hence it is sufficiently refuted by its very singularity and by the ineffectiveness of its proofs. To 1º, we say that blood was given to man not only for nutrition but also for the ornament, beauty, and temperament of the human body, just as a stream of crystalline water not only nourishes flowers but also contributes greatly to the temper and beauty of a garden. On this title, therefore, and also on that of complete integrity, it must be restored to the bodies of the blessed even though they are no longer to be nourished, just as organization must also be restored, which through itself had been instituted for vegetating. Suppose a garden planted with incorruptible flowers: it will still need to be irrigated by streams for the sake of beauty. To 2º: the nutritive power is not so voracious that it can quickly consume all the blood in the manner of fire; rather it gradually disposes and organizes its particles insinuated into the pores of solid parts and, as some hold, converts them into dew or cambium, namely the whitish juice customarily called nutritive juice, so that it may finally convert them into the substance of the nourished thing, while the liver in the meantime pours in new blood formed from the chyle. To 3º: the power of heat and acid residing in the stomach, since it is instituted for the digestion of external nourishment, initiates this digestion and, when it does not obtain food, rages against the neighboring parts of the living thing, even solid ones, and thus causes hunger and even death, although by accident, in those also who abound in blood.

63. Our opinion is proved, 2º: blood is not continuous with the solid parts of the human body; therefore it is not informed by the rational soul. The consequence is evident because the same form cannot simultaneously inform discontinuous parts of matter; otherwise the soul could inform a severed hand contiguous to the body. Proof of the antecedent: both from Aristotle, l. 2, *De partibus animalium* c. 3, saying, "Blood is not continuous with flesh, but is enclosed in the heart and veins as in vessels"; and because blood boils, flows, and is moved by perpetual circulation. But that which is continually moved and agitated cannot be continuous with an immobile part, as is evident of itself. Nor may one have recourse with the Thomists to certain fibers by which the blood is continuous with the liver. For if the matter of the fibers is solid, it cannot be continuous with flowing blood; but if fluid, it cannot itself be continuous with the solid liver. Moreover, these fibers, if they exist, are common to both kinds of blood, perfect and

imperfect, since they pervade the whole mass of each, as is seen in bovine blood, which the Thomists adduce as an example; therefore each would be continuous with the liver, and thus each would be animated, which the Thomists deny. Moreover, if imperfect blood is not animated but differs in species from perfect blood, since it is certain that both are mixed in the veins, particles of perfect blood will be rendered discontinuous by admixture of the imperfect, just as particles of wine are rendered discontinuous by mixture with water. Therefore they cannot retain animation.

64. From what has been said it is evident that, for the present question, the Thomistic distinction of two kinds of blood discussed above in n. 52 is useless. For our proofs apply to perfect blood, as will be clear to anyone considering them. Moreover, that distinction is not well taken from St. Thomas, whatever the Thomists may say. For the Holy Doctor, Quodlibet 5, ar. 5, where he seems most clearly to indicate it, for nowhere in the Parts of the *Summa Theologiae* does he indicate it, does indeed say that "not all nutrimental blood belongs to the truth of human nature," but he does not distinguish two species of blood; rather he presupposes that all blood is nutrimental. He adds, however, that all the blood possessed by man at perfect age belongs to the truth of human nature, and at that age there is undoubtedly a great deal of nutrimental blood. He also teaches there that all the blood shed in Christ's Passion was united to the Word and restored to His glorious body; but who doubts that nutrimental blood was shed in the Passion? Therefore when the Thomists deny of nutrimental blood that it belongs to the truth of human nature, that it was assumed by the Word, or that it was restored in the resurrection, they oppose St. Thomas. The portion of blood that does not belong to the truth of human nature is taken by St. Thomas for blood, not that is blood now, but that was blood and has already been converted into the white liquid called dew and cambium, as the Holy Doctor himself explains in 4, ad Annibald. q. 1, ar. 1, ad 1, cited by the College of Alcalá. Hence it is not taken for the blood that the Thomists call nutrimental, for this is formed immediately after the chyle, before it reaches the liver, in which it is converted into perfect blood, as the same College teaches, cit. q. 2, n. 51, although later, nn. 58 and 59, with little consistency it supposes both kinds of blood to be mixed in the veins.

65. I shall give below, n. 73, another sufficiently efficacious argument for our opinion. For now I note that it applies not only to human blood but also to that of brutes, and likewise to the nutritive juice that in plants takes the place of blood. I further note that what is said of blood must be thought of the three other principal humors, namely phlegm and both kinds of bile, yellow and black, which are otherwise called phlegm, choler, and

melancholy. The same applies to the vital and animal spirits, since they are particles of purer and subtler blood. And if Aristotle somewhere says that spirits of this kind sense or understand, he speaks causally, not formally. The same likewise applies to milk, fat, and bone marrow, because no organization is found in them. The spinal marrow must be judged otherwise, because it is homogeneous with the brain and wholly filled with veins and arteries. Semen also is commonly said to be inanimate, except the seeds of plants so long as they remain united to the plants. Finally, it is regarded as certain that tears, sweat, and saliva are not animated.

Arguments for the Animation of Blood Are Answered.

66. It is objected, 1º, and principally: blood is a true part of the human body, or of human nature. This is evident, 1º, because the Divine Word assumed blood, since He assumed only what belongs to the integrity of human nature. 2º, because Pope Cajus in Decretal. ad Felic. says: "If Christ did not assume the true parts of human nature, by what blood were we redeemed?" And Innocent III in extravag. *De celebratione Missae* says that water and blood flowed from Christ's side as a sign that that body had the four humors that belong to the composition of the human body. 3º, because Trent, sess. 13, cap. 3, teaches that the body of the Lord is placed under the species of wine, and the blood under the species of bread, in the Eucharist "by virtue of that natural connection and concomitance by which the parts of Christ the Lord... are joined to one another." 4º, because the Philosopher, l. 3, *De historia animalium* c. 2, and often elsewhere, numbers blood among the parts of animals; and St. Thomas, Summa Theologiae III, q. 54, ar. 2, ad 3, and elsewhere more than once, asserts that blood belongs to the truth of human nature. 5º, because a body without blood is mutilated or not integral; hence blood must be restored to the bodies of the blessed. Then thus: therefore blood is animated and in man is informed by the rational soul. The inference is established, for otherwise human nature, as complete and integral, would consist of two substantial forms, namely the soul and the form of the blood, and would not be one in itself but an aggregate of two complete beings.

67. I answer: in living things a twofold genus of parts must be distinguished. One consists of those that are organic, or suitably disposed for some vital operation, such as bones, nerves, flesh, and the other solid parts; these belong to the primary integrity of the body. The other consists of those that are not organized and consequently cannot operate vitally; yet because they are necessary for the support and beauty of the others, and by

their nature are subordinated to the soul and depend in their being upon animated parts, to which they must permanently and intimately be joined, so that once separated they quickly perish, they therefore also deserve the name of parts in the body of an animal and belong to its secondary integrity, as I shall say again in n. 72. Such are blood and the other humors. This distinction of parts has a foundation in Aristotle, who, although he often calls blood a part of an animal, nevertheless in l. 2, *De partibus animalium* expressly says that "blood is no part of animals." Likewise in St. Thomas, who, although he says that blood belongs to the truth of human nature, nevertheless in Summa Theologiae III, q. 31, ar. 5, ad 1, teaches that flesh and bones "are actual parts of the body from which the integrity of the body is constituted, and therefore cannot be removed without corruption or diminution of the body." But this he there denies of blood and cites the Philosopher, concluding thus: "And therefore Christ's body ought not to have been formed from the Virgin's flesh or bones, but from blood, which is not yet actually a part but is potentially the whole, as is said in *De generatione animalium*." From these passages it is evident that in Aristotle and St. Thomas there are two genera of parts, or two senses of integrity, in one of which they deny and in the other affirm that blood is a part of the human body; otherwise they would contradict themselves.

68. We grant, therefore, that blood is a true part of the human body, but an inorganic one, and that it truly belongs to the integrity of human nature, but to secondary integrity; this suffices to verify everything alleged in the objection. Yet we deny the consequence to animation, because the soul need not inform every part of the body, but only organic parts, to which alone it gives the potency of operating vitally. As to the claim that human nature, insofar as integral, consists of two substantial forms, this is denied if the discussion concerns primary integrity. But if one speaks of complete integrity including the secondary also, it is granted as regards two forms, one of which is subordinated to the other and exists in distinct and discontinuous matter. Likewise human nature, insofar as primarily constituted and integral, is strictly one in itself; but insofar as it is also secondarily integrated, it is not one in itself by the intrinsic unity of a physical substantial union, but only by the intrinsic unity of connection, coordination, and reciprocal natural dependence by which all the parts require local conjunction so as mutually to conserve one another. Even in this latter sense it is not one "by accident" if by that phrase is excluded the intrinsic unity of mutual connection, or a conjunction due in itself to both extremes, solid and fluid. Nor is it true that blood is an integrally complete being; for of itself it is ordered to integrate the animal. Thus a branch of a

tree, although distinct in matter and form from the trunk, is not an integrally complete being; hence a tree is not said to be constituted from many complete beings.

69. It is replied, 1º: therefore the form of man will not be adequately spiritual and incorruptible. I distinguish the consequence: the form of man, taken for the soul, I deny; for Faith and reason teach of the human soul alone that it is spiritual and incorruptible, and therefore no one on this ground attacks the form of corporeity asserted by the Scotists in man, while the form of blood is not a soul. The form of man, taken for the form of all the parts of man, including those that secondarily integrate him, I grant the consequence. In this sense there is not one form but two, without continuative union between them. The same must be said by several of the adversaries who deny that milk and semen are animated, although Aristotle numbers them among the parts of an animal; likewise by others denying that nails and hairs are informed by the rational soul, although these are true parts of man, assumed by the Word and placed under the species of bread in the Eucharist by virtue of the words.

70. It is replied, 2º: therefore the air that man needs for breathing will be a secondary part of man; or at least accidental organization will constitute the integrity of man. Likewise the Divine Persons of the Trinity, because mutually connected and inseparable, will be coordinated with one another as parts or co-parts. I deny the consequence, because air does not need man in order to exist but has its own integrity apart from him, nor is it permanently intrinsic to him, but enters and leaves. Accidents cannot be called parts when substantial integrity is in question. Among the Persons of the Trinity, since they are supremely equal, there is no subordination or dependence such as blood has in relation to the soul, or animated body, as intimately conjoined, and from which, not from mere connection and inseparability, it receives the name of an integrating part. Hence it is also denied, as is commonly objected, that one whole could be integrated from the forms of a goat and a stag, especially if they were divinely conjoined in the same matter. It is denied, I say, because between those forms there is no natural subordination and dependence.

71. It is replied, 3º, from the College of St. Thomas: blood belongs to the primary integrity of human nature; therefore it is animated. Proof of the antecedent, 1º, because it is no less necessary for human life than bones and flesh; indeed, it is more necessary than feet and hands, since without these a man can live at least for a short time, but not without blood. 2º, because otherwise the whole integrity of human nature absolutely and simply would be preserved in someone without blood; hence it would not follow from the

assumption of human nature that blood was assumed by the Word. 3º, because, since there is no necessary connection between a primary and a secondary term, from the fact that Christ's flesh is placed under the species of bread by virtue of the words, Trent would not rightly say that His blood is also placed there by virtue of connection. I deny the antecedent as openly contrary to the doctrine of St. Thomas; for, as we saw in n. 67, the Angelic Doctor expressly teaches that not blood but bones and flesh are the parts "from which the integrity of the body is constituted." Is this not primary integrity? He also teaches that something can be taken away from the blood without diminution of the integrity of the body, but not from flesh or bone. Tell me, I ask, how it coheres with this doctrine that blood is a primary part, or belongs to the primary integrity of the body, no less than flesh and bone, and more than hand or foot? That it is not an equally perfect part, as the same College says, cit. q. 2, n. 65, is irrelevant if it is nevertheless equally a part and equally primary.

72. To proof 1º: just as something can be simply necessary for human life without being a part of man, e.g. the concurrence of God or breathable air; likewise, just as in essential composition union is equally necessary with form and matter and yet is not equally a part, so in integral composition one thing can be equally or more necessary than another without therefore being equally or more a part of the composite. Primary integrity of human nature, therefore, is now taken not from greater necessity but from the immediate correspondence of the parts of the body to the soul as such, that is, as the first act of an organic body. Such correspondence belongs only to organic parts. For blood and the other humors are required by the soul not immediately and for their own sake, but for the sake of the organic parts and for their benefit. Hence they are rightly called secondary parts in the present matter, even in relation to hairs and nails, considering namely the prerogative of order to the soul, although not considering necessity or utility. To 2º: if blood is prescinded from, the integrity of human nature absolutely and simply, that is, without qualification, is preserved. For St. Thomas absolutely calls that integrity which according to him is not constituted from blood. But not so if "absolutely and simply" means "according to every mode of integrity." It is established from the Fathers and the consensus of the Church that Christ assumed human nature integrally in every manner, so that He might become like us in all natural things, and particularly that He willed to assume blood, which He would shed as the price of our redemption.

73. To 3º: that there is no necessary connection between a primary and a secondary term is asserted gratuitously and contrary to the principles of the

Thomists, who maintain that substance and property are the primary and secondary terms of generation, between which there is undoubtedly a necessary connection. Moreover, from the mystery of the Eucharist the adversaries are validly refuted. For according to Trent, blood is not placed under the species of bread by virtue of the words but by concomitance; yet it would be so placed if it were a part belonging to the primary integrity of the body, just as hands, feet, nails, hair, etc. are placed there. The Thomists answer that under the species of bread by virtue of the words there is placed only the body as prescinding from living and dead, and consequently blood is not placed there because it is only a primary part of a living body. But against this, 1º: then by prescinding from blood the complete signification of the words "My body," which Christ uttered absolutely and simply while living in the flesh, is already preserved. Against this, 2º: a bloodless body is mutilated according to the adversaries, who from this prove that it is constituted from blood; but a bloodless body is not living; therefore a dead body is rendered mutilated by lack of blood, which consequently will be a part of it. Against this, 3º: a dead body can have blood, as is seen in those who have been suffocated and commonly in others; therefore a body having blood can prescind from living and dead. But, one says, it can also lack blood, as Christ's dead body lacked it. But against this again: a dead body can also lack its head and can die by its amputation; therefore neither will the head be a part of a dead body. If, therefore, Christ had permitted Himself to be killed by decapitation, the head would not be placed under the species of bread by virtue of the words.

74. Nor does it help more that others answer that under the species of bread by virtue of the words only the body as regards its solid parts is placed there, because it is placed there in the manner of food, while blood is drink. For against this, 1º: teeth and bones do not have the character of food in human usage, yet they are placed there by virtue of the words. Against this, 2º: blood is not unsuitable as food, at least insofar as mixed with solid parts, like must not yet expressed from the grape. It must therefore be said that there are two proper and complete senses of this name "human body" said absolutely: one of a body integral according to primary integrity, the other according to complete integrity including secondary parts also. Which of these is to be understood depends upon the intention of the speaker and the circumstances. And since Christ the Lord, when instituting the Sacrament of the Eucharist, gave His blood separately under the species of wine, He sufficiently expressed that under the species of bread He gave the body integral according to primary integrity, which is not constituted from blood.

75. The remaining arguments are few and easily solved. It is objected, 2º: from our opinion it follows that the Divine Word assumed an irrational nature, namely the nature of blood constituted from an irrational form; hence it could truly be said, "God is irrational," just as it is truly said, "God is man." I answer: the common opinion of Theologians recognizes as possible a union of the Word with a wholly integral irrational nature; yet no one grants that such a union in fact exists, at least permanently and from a primary intention. Nor does such a union follow from our opinion, but only a union of the Word with an irrational nature integrally incomplete and belonging in itself to the integrity of human nature, such as the nature of blood. In this there is in reality no absurdity, just as there is none in the fact that the Word assumed prime matter. Nor could God therefore be called irrational, because there is no communication of idioms with an integral part of human nature. Thus it is not said, "God is a foot," or "He is a hand"; nor is it said, "God is blood," even if blood is animated. But the Word is said to have been made flesh because "flesh" is taken for the whole human nature. Here note that it means the same thing to say that the Word assumed blood through the mediation of the soul, as the Fathers speak, and that He assumed it because of its relation to the soul. For blood was assumed precisely because it is subordinated to the soul as a secondary part of the human body.

76. It is objected, 3º, from Lev. 17: "The soul of all flesh is in the blood." Explaining this, St. Augustine, q. 57, says: "There is something vital in the blood, because through it life is chiefly maintained in this flesh." I answer: the soul of the flesh is in the blood causally, insofar as the life of the flesh depends upon and is fostered by the blood. Thus it is said, Wis. 3: "The souls of the just are in the hand of God"; and in Acts 17 the Apostle says of God, "In Him we live and move and are." See above, disp. 1, n. 80. St. Augustine speaks in the same causal sense, as the reason "because through it, etc." indicates. Thus "vital heat" and "vital breath" are commonly spoken of.

77. Finally, Aristotle is objected, l. 3, *De historia animalium* c. 19, saying, "As long as life is preserved, the blood is animated as one and boils." Likewise St. Thomas, in 4, d. 44, q. 1, ar. 2, quaestiunc. 3, ad 3, teaching that the humors must in some manner be perfected by the soul, though not as perfectly as the other parts, just as all the parts of the Universe receive perfection from God. I answer: those words of the Philosopher are not found in the Greek copies and, as they stand, absurdly signify that nothing except blood is animated. They can nevertheless be true metaphorically, if animation is taken for perpetual motion; in this sense we speak of "quicksilver" and "living water" while it flows, and conversely of "dead

water" when it stands motionless. As to the passage of St. Thomas, we grant that the humors are in some manner perfected by the soul, because by the soul's power they are increased and conserved; in this sense also the parts of the Universe receive perfection from God. Here it should be noted that the usual comparison of the four humors to the elements, as though they stand in the human body as the elements do in the Universe, does not refute but rather confirms our opinion, since the elements are not informed by the form of mixed bodies. The comparison, however, does not hold in all respects; for the elements have their own integrity independently of mixed bodies, but the humors of the human body do not have theirs independently of the solid parts. Hence the human body, insofar as consisting of solid and fluid parts, is more one than the Universe insofar as constituted from elements and mixed bodies.

CHAPTER IV.
Whether All Rational Souls Are in Fact Equal in Entitative Perfection.

78. It is certain that all human souls actually existing, or that will exist, are of the same ultimate species, since it is established from the doctrine of Faith that the Divine Word assumed a nature of the same species as that of other men. The question, however, is whether they are all entirely equal in entitative perfection, as it were individual. The Thomists commonly deny this, and the Eximious Doctor incidentally favors them, tom. 2, in 3, p. d. 50, s. 5; although that passage does not sufficiently prove that he was speaking according to his own mind, for authors speaking incidentally and intent upon other matters often presuppose the probable opinions of others. Fathers Rubio, Arriaga, and Oviedo also deny it, although the latter says that this opinion rests only on a prudent conjecture; Echalez, Tosca, and others join them. But the Thomists generally deny that individuals of one species can possibly be altogether equal, which displeases the other authors. Our authors, however, commonly affirm it, such as Fonseca, Cardinal Toletus, the Conimbricenses, Hurtado, Compton, Alphonsus, Quiros, Peynado, and Ulloa. Aversa, Pontius, and Mastrius agree, as do Sotus, Soncinus, and others among the Thomists.

79. Cajetan calls "blind" those who do not see the negative opinion in St. Thomas; but Sotus, c. de subst. q. 2, ad 5, disregarding the reproach of blindness, testifies that he sees the contrary. For my part, I confess that St. Thomas, not only in his work on the Sentences, but also I, q. 85, a. 7, quite expressly favors the negative opinion. But St. Thomas teaches the affirmative

no less, or even more, expressly in III, q. 69, a. 8, where, in reply to the third argument, namely that the grace of baptism ought to be unequal because the capacity for natural things is unequal even in children, he answers in these words: "It must be said that the diverse capacity for natural things in men does not arise from a diversity of mind, which is renewed through baptism, since all men, being of the same species, agree in form; rather, it arises from the diverse disposition of bodies." Since this passage is in St. Thomas's latest work, it ought to prevail over the earlier ones. To this is added the no less explicit teaching of St. Thomas, *Quodlibeta* III, a. 6, namely that under the same genus one species can be prior or more perfect than another, but under the same species one individual cannot be prior to another except in time alone. This is also the explicit teaching of Aristotle, l. III, *Metaphysica*, c. 3, t. 11.

80. Therefore the affirmative opinion must be maintained. It is proved as follows. Inequality among souls is established by no sufficient foundation; therefore, since specific identity grounds a presumption in favor of equality, all ought to be regarded as equal. The consequence carries its proof with it and will be further strengthened below, n. 83. The antecedent is proved: inequality is established only because either equality among individuals under the same species is generally repugnant, or a great inequality of operations is seen among men, or it seems unfitting that the soul of Christ the Lord should not be more perfect than the soul of Judas. These are all, or at least the principal, foundations of the contrary opinion. But none of these reasons is adequate; therefore, etc. The minor premise is proved as to the first part, against the Thomists: because it seems altogether incredible that God could not make two souls, or two whitenesses, entirely equal; or could not make two men equally blessed by entirely equal beatific visions, when the contrary appears sufficiently from the parable of the laborers, Matt. 20, and from the common judgment of theologians; or likewise could not confer upon two men intrinsic helps that were entirely equal. This would render pointless that celebrated theological question concerning a subject that does not presuppose the fact: whether, of two men endowed with equal help, one can consent rather than the other? All these things plainly follow from the general principle assumed by the Thomists, as may be seen in the College of St. Thomas, 1, 2, *De anima*, q. 2, n. 136, namely: "Whatever things differ in some perfection are not equal in that perfection in the mode and respect in which they differ." From this they infer that, since individuals of one species necessarily differ in individual perfection, inasmuch as one is not the other, they are necessarily unequal individually. But this reasoning clearly applies

to individuals not only of substance, but also of accident, for example vision, help, and whiteness.

81. Furthermore, the same part is proved because individuals of one species require no other diversity than that which suffices for them to be truly distinct, that is, for this not to be that, but for there to be two; for this reason individual difference is called "purely numerical." But for them to be truly distinct inequalities are not required, since true distinction can stand without them, as is evident not only in the Divine Persons but also in two palm-long lines, which, although individually distinct under the same species of extension, are certainly not unequal. Consider two quantities of bulk equally extended and in their connatural state: neither is more perfect than the other mathematically, that is, according to extension, as is presupposed; nor is it more perfect physically, because the physical perfection of quantity is taken from its requirement for impenetrable extension, and neither quantity requires greater extension nor resists penetration more than the other. They are therefore equal in every sense. Moreover, two successive apprehensions of "animal" elicited by Peter have no source from which they could derive inequality, since their mode of tending, cause, and object are altogether the same. Furthermore, otherwise the rational souls created from Adam down to the present time would observe among themselves an order of more and less perfect, so that none would be equal to another. Therefore the soul of this age would be notably, indeed incomparably, more or less perfect than the soul of our first parent, according as one wished to establish an order of increase or of decrease. How, then, would it be of the same species?

82. The same minor premise is now proved as to the second part. 1º Because, if inequality of operations were an adequate reason, it would equally prove a specific diversity of souls, since it is not merely some inequality, but a notable and great distance between the operations of different men, that appears. Do not the operations of a dull man and of a most acute man differ by a great interval? Those of the prudent and the foolish? Those of one blind or deaf from birth and of one who sees or hears? Certainly the acts of some men differ from one another no less than the operations of a wolf and a dog, or a horse and an ass, whose souls differ in species. 2º Because from that reason it would follow that the souls of some men are not rational, nor capable of morality or free choice; for some are so deficient, having received so unfortunate an organization that throughout their whole life they lack the use of reason and the freedom to merit and demerit. 3º Because often the same man, according to the variety of times and dispositions, experiences in himself a great diversity of operations and

inclinations. It often happens that the very same man changes from uncultivated to intelligent, or conversely, that through disease he loses his memory, or from prudent becomes delirious. Therefore the same man will everywhere change souls like garments, if one must judge according to the variety of human actions.

83. From this our opinion is also powerfully strengthened, because, as Father Ulloa argues well, whenever some effect is of itself indifferent to proceeding from either of two causes, one of which certainly and manifestly exists while the other is hidden and uncertain, the right method of philosophizing demands that the effect be attributed to the manifest cause, avoiding recourse to the hidden one. But the inequality of human actions is of itself indifferent to proceeding either from the substantial inequality of souls or solely from the unequal disposition of bodies, which is accidental with respect to the soul, as the adversaries admit in the diverse states of the same man and also in those who are deficient or altogether uncultivated; and, moreover, the first of these causes is uncertain and hidden, while the latter is certain and manifest. Therefore the right method of philosophizing, etc. The objection is pressed: just as in moral matters privileges among men are not to be asserted without sufficient foundation, so in physical matters a prerogative of perfection among souls is not to be asserted without a foundation or adequate indication; but an indication that can conveniently be referred to another and more manifest cause is not adequate.

84. Finally, that minor premise is proved as to the third part. For it is more consonant with Scripture that the soul of Christ the Lord is substantially equal to the soul of Judas and of any man whatsoever. For Christ, as the Apostle says, Heb. 2, "Nowhere does He take hold of the angels, but He takes hold of the seed of Abraham; whence He had to be made like His brethren in all things." Since this "likeness in all things" is not in supernatural gifts, nor in temperament and the accidental disposition of the body, as is manifest, it remains that it be in the substantial and entitative perfection of the soul. Accordingly, the soul of Christ immeasurably exceeds the soul of Judas in superadded gifts; nevertheless it is altogether equal to it in entitative perfection, just as it is of the same species, as all admit. This equality would horrify no one if Judas had been eminently holy, as he could have been. Why, then, should it now be horrifying, since Judas did not change his soul as to substance? Hence the censure of error by which the Parisian Faculty of the Sorbonne once condemned our opinion because of the consequence of this equality is rightly rejected. "The decrees of the Sorbonne do not cross the Seine," as has now almost passed into a proverb. Cardinal Toletus, moreover, says rather that the contrary opinion is

dangerous, since it seems to follow from it that the soul of Christ differs in species from the other human souls. Indeed, if an argument may be taken from the excess of virtues and gifts, the soul of Christ differs from the rest by more than species.

85. Our opinion is also commonly proved because from the opposite view it follows that the souls of a man and a woman are unequal, and that one determinately requires a male body while the other requires a female body. The Thomists concede the consequence. But its absurdity is proved, 1º because it would follow that a difference of sex exists in souls, at least inchoatively. 2º Because, since the female sex is less noble, the soul of a woman would always be more imperfect than the soul of a man; yet experience teaches that some women surpass many men in constancy, prudence, intelligence, etc.; and this is beyond doubt concerning the Most Blessed Virgin Mother of God. The College of St. Thomas answers, cit. q. 2, n. 163, that women's souls are more imperfect "generically," yet some particular woman's soul can be more perfect than a man's, just as some volition can exceed certain intellections although volition generically is less noble than intellection. But against this: what is meant by "generically" here, where it is presupposed that the souls of men and women are contained under the same ultimate species and the dispute concerns only individual inequality? Perhaps it will be said that "generically" means the same as "according to the common character of a female soul." But I ask how this common character, if it is grounded in the substance of the soul, is not properly generic or specific, since it intrinsically implies an organization very different from the male and differs very greatly from the male soul in grounding the power of generation, especially if the woman does not concur actively in generation, as the most common opinion holds. We shall give other proofs while resolving the contrary arguments.

Objections Rejected.

86. *Objection 1:* According to the Thomists, substantial diversity cannot stand without inequality; but the individual difference of souls is a certain substantial diversity; therefore. I answer by distinguishing the major premise: specific substantial diversity, I set aside, since this will be treated below, ch. 6; individual substantial diversity, I deny the major premise; and, granting the minor premise, I deny the consequence. No reason can establish the major premise in individuals of substance which does not equally apply to individuals of accident, or of accidental form; whence would

follow the absurdities touched upon in n. 80 and others like them. The proof given in n. 81 also bears upon this.

87. *Objection 2, and principally:* Inequality of vital operations necessarily argues inequality of souls; but such inequality is everywhere seen among men, since one is dull, another acute, one knows the sciences without a teacher, another needs instruction, etc.; therefore. The major premise is proved because by this argument we are led to say that the soul of a man is more perfect than that of a horse, and the latter than that of an ass; and we reason similarly concerning the operations and forms of inanimate things. But if one has recourse to inequality of temperament or organization, the argument is renewed against that very point. 1º Because organization and the disposition of the body are established by nature for the sake of the soul as their end; therefore a better disposition is established for a more perfect soul. For since nature does nothing in vain or by chance, it does not prepare more perfect means except to attain a more perfect end. 2º Because the organic disposition, insofar as it is the ultimate disposition, arises from the soul in the manner of a property within the genus of efficient cause; therefore the more perfect disposition arises from the more perfect soul, for we cannot otherwise establish the inequality of substances except from physical properties. 3º Because the first requirement of the unequal perfection of accidents must be sought in substance, which is the first root of accidents; but a requirement of inequality cannot be found in equal substances. Confirmation: at least in male and female, in whom the disparity of organization is not accidental, the souls must be unequal. A further confirmation from Tosca: from inequality of organs alone no account whatever can be given of why some are especially apt for metaphysical matters but inept for mathematical matters.

88. *I answer:* The adversaries themselves must resolve this objection, as is clear from n. 82, unless they most absurdly wish human souls to differ from one another in species, and some of them not to be rational, nor capable of seeing or hearing, or even that souls change in the same man through illness or age. Accordingly, I distinguish the major premise: when inequality of operations is of itself and arises from the intrinsic requirement of souls, I grant it; when it is accidental and beyond the requirement of the souls, as it actually is in men, I deny the major premise. To the proof we say that the inequality between the operations of a man and of a horse is of itself, because, since no animal having an equine organization has ever been seen to reason, we rightly conclude that the soul requiring such an organization is by its nature incapable of rational operations. But since most men reason, and it is otherwise established that all are of the same species,

and since it often happens that one who is uncultivated or insane becomes intelligent or prudent, and conversely, changes that we commonly see occur through illness or age, we rightly judge that all souls to which simply human organization is due are of themselves fecund in equal operations, and that all inequality in operating is accidental, namely from the diverse disposition of the body, whose service the power of the soul requires in the state of union. Nor do the renewed forms of the argument stand against this.

89. *To 1º*: The counterexample is manifest in the organic disposition of one who is deficient, permanently insane, or blind from birth, which certainly is not established by nature for the sake of a deficient, delirious, or blind soul. Therefore the organic disposition of the body is established by nature, that is, by the generative power, for the sake of the soul as its end, not as regards defect but as regards positive perfection useful for vital operation. Since the human generative power intends in every fetus a soul equally perfect, it seeks in every fetus an organization equally perfect, or most perfect within the line of human organization; but it is very often impeded from attaining that whole perfection by various causes that are accidentally joined to it, such as excess or defect of seminal matter, disease afflicting either parent or both, unhealthiness of food, the configuration of the stars, the intemperateness of climate or air, etc. From these causes, therefore, which do not concur everywhere or equally, arises the inequality of human temperament and organization, which accordingly occurs accidentally with respect to the soul of the fetus and the generative power. The adversaries admit this both in those who are deficient, blind, or deaf from birth and in the inequality that the same man experiences in himself over the course of life. From this one will gather that every rational soul which does not obtain a bodily disposition supremely perfect within the human species suffers a certain violence in the natural order, just as it does in the body of one who is foolish, blind, or deaf.

90. *To 2º*: First, the same counterexample returns from the organic disposition of the deficient man, etc. Next, the Thomistic doctrine, refuted elsewhere, concerning mutual priority and the resolution of the composite down to prime matter is presupposed there. Finally, even if it be admitted that the ultimate disposition existing at the instant of animation is effected by the soul when the preceding disposition of the embryo perishes, it nevertheless cannot be denied that this disposition must be similar to the preceding one, which leaves matter stamped. Hence, if the preceding disposition of the embryo was defective, that which results from the soul must likewise be defective. Thus, although at a man's death all accidents perish and new ones are suddenly produced, as the Thomists hold,

nevertheless, because of the stamping of matter, we see in the corpse similar organs, scars, birthmarks, etc. Therefore, although temperament and organic accidents are rooted in or required by the soul as physical properties for the state of union, nevertheless, since they are received in matter subject to contrary impressions, they can fail to attain the measure required by the perfection of the soul. Thus, although the form of water roots coldness in the highest degree, it scarcely ever attains it. Inequality of souls, therefore, is not rightly inferred from properties of this sort. But we deny that properties independent of matter, namely spiritual powers, are unequal.

91. *To 3º*: I ask, in what substance must we seek the first requirement of those accidents by which a man is rendered insane, blind, deaf, sick, etc.? Likewise of those by which water is made hot, air dry, or earth moist? If it is said that these are foreign accidents whose first root is not in the composite in which they inhere but in external agents, let the same be said to you concerning the inequality of the accidents of the human body; for we deny that this inequality is intrinsic and according to the requirement of souls. Indeed, since men are usually, according to the diversity of regions, of different dispositions and temperaments, and some surpass others in strength or intelligence, if this had to be referred to the intrinsic requirement of souls, it would follow that diverse souls are destined by nature for Europeans and for Africans or Americans, and likewise diverse souls for Spaniards and for Frenchmen or Danes; which is ridiculous. The Thomists say that not every disposition of the body arises of itself from the requirement of the soul, but only that which exists in the first instant of animation. But how will they prove that the disposition of the first instant is more of itself than the disposition of youth or mature age, which is more apt for reasoning? How will they prove that the defect by which a man is later born deaf, blind, foolish, or monstrous is not already present from the first instant of animation? What is more certain than that monsters arise from a disordered combination of seminal matter, and that the diseases of the parents contribute much imperfection to the fetus while it is first being formed?

92. *To the first confirmation:* Although disparity of organization in male and female is not accidental with respect to the human species, it is nevertheless accidental with respect to each individual soul, because each soul of itself is indifferent to either sex. This follows both from what was said in n. 85 and because it has often happened that a woman was changed into a man. Moreover, otherwise it would follow that hermaphrodites, in whom both sexes are present, either have two rational souls or one equivalent to two, namely a male and a female soul. *To the second:* Although

from the disparity of organs no evident account can be given of that difference, just as neither Tosca nor any other Atomist can give one concerning innumerable particular motions of animals, because none of us clearly penetrates the manner in which the imagination operates and serves the intellect, nevertheless it must not be doubted that this difference depends upon the imagination. For it is established that those endowed with a more vivid imagination are more apt for mathematics, as also for poetry and painting. Indeed, the same man, according to the varying disposition of his head for imagining, is at one time more and at another less apt to exercise himself in these disciplines. Otherwise, if some souls were intrinsically apt or inept for mathematics, others for metaphysics, others for medicine, others for poetics, etc., they could not all be of the same species, since it is certain that these disciplines differ from one another in species as regards acts and habits. Nor does it matter that all their acts agree in the character of intellection. For all the sensations of a lion and of a horse likewise agree in the character of cognition, or material perception, and yet they presuppose souls specifically distinct.

93. *Objection 3:* Inequality between souls of the same species is possible; therefore it ought to be admitted in fact. The consequence is proved, 1º because in this way an easy and excellent account is given of the inequality in operating which we commonly experience. To this belongs the maxim, "The mode of operating follows the mode of being." 2º Because, just as inequality of species, so also inequality of individuals contributes more to the beauty of the universe; for which reason inequality is found among the organizations and temperaments of men, although all are of the same species. Leaving the antecedent aside, I deny the consequence. To the first proof: this is not the best explanation when it is introduced merely by conjecture while another more certain and manifest one is available, as we noted in n. 83. As for the maxim, "The mode of operating follows the mode of being," it proves indeed that an operation cannot be of a higher order than the operative power, but it does not prove that equal powers must always operate equally, since one of them can accidentally be impeded from unfolding its entire fecundity. To 2º: rather, the universe is beautified by inequality of species and equality of individuals; for if all things were unequal, it would be like a great palace no part of which perfectly corresponded to another. Human temperaments are of the same species as regards their power of disposing the body to receive or retain the soul, and in this sense they are not unequal. They are not, however, in the same species of degree or in the same species of proportion, because in one there are more degrees of heat, in another of cold, and so with the other primary

qualities, which are associated in diverse proportions. Similarly, unequal organizations, insofar as they involve figure, do not preserve the same species of extension, lines, angles, etc.

94. *Objection 4:* Wis. 8: "I was a clever boy and obtained a good soul." But this must be explained by everyone, for in the physical or transcendental sense no soul is not good; and in the moral sense none is not good except through sin. The Wise Man therefore says that he obtained a good soul by reason of the excellent natural disposition and gifts superadded to him by God. Finally, observe that without prejudice to the equality defended thus far it can be conceded to the Thomists that each soul of itself expresses an order toward such an individual body and could not have been received in another. For this order does not render souls unequal, since it regards bodies substantially equal and also equally disposed insofar as this is due by the right or requirement of the souls, although this requirement may accidentally be frustrated.

CHAPTER V.

Whether Inequality of Entitative Perfection Can Exist among Souls of the Same Ultimate Species.

95. From the question of fact we proceed to the question of possibility. This question is indeed common to the individuals of every ultimate species, but it is raised specifically concerning souls because even their actual inequality is disputed. That inequality can exist among human souls, and generally among individuals of the same species, is affirmed, besides the Thomists cited in the preceding chapter, who assert equality to be impossible, by Arriaga, Oviedo, Peynado, Ulloa, and many others. Fonseca, Toletus, Hurtado, Compton, Quiros, and many others of our authors, especially the more recent, deny it; likewise Sotus and other Thomists, and also Pontius and the Scotist Mastrius, who, disp. 10, *Metaphysica*, n. 168, cites Scotus and other Scotists. The first opinion is sufficiently probable, and therefore we have sometimes presupposed it incidentally. The second, however, and negative opinion, which Aristotle and St. Thomas clearly favor in the places cited above, n. 79, is now to be embraced as more probable.

96. *It is proved as follows.* Inequality of souls of the same species cannot consist, first, in essential or specific predicates; next, neither can it consist in any other predicate; therefore it is altogether impossible. The major premise cannot be denied, for if two souls were unequal in some essential predicate, the definition of one would not be adequate to the other, nor could both be univocally contained under the same specific concept, which would be

predicated of each completely as what it is, or "as its whole metaphysical essence"; consequently, they would not be of the same species. Therefore the minor premise is proved. Predicates outside the essence are either metaphysical properties, as in man the capacity for wonder and laughter, or the individual difference. That inequality cannot arise from properties ought to be certain, for since properties are commensurate with the essence as with their necessary root, inequality cannot of itself exist among them unless it also exists among the essences. That it likewise cannot arise from individual difference is shown because the whole function of that difference is to determine the nature of the species so that it be this rather than that, or belong to this and not that individual, just as the whole function of ubication or duration is to determine a thing so that it be here rather than there, or exist now rather than at another time. Since, therefore, all haecceities equally perform this function with respect to the same specific nature, there is no source from which they could be rendered unequal, just as for a similar reason there is no source from which the natural durations or ubications of the same thing could become unequal.

97. *Confirmation 1:* An individual difference could introduce inequality among human souls only insofar as it rendered them unequally intellective. This is the view of the Thomists and of others among the adversaries who in fact attribute to the individual difference of souls the inequality found between ordinary and most acute intelligence, for example one like Augustine's. But it is repugnant that greater intellectivity, or a greater substantial aptitude for understanding, should arise from the individual difference; therefore, etc. The minor premise is proved, 1º because this difference, insofar as it is formally co-distinct from the essence, is not a principle of action but a mere condition. For the principle of action, or first root of operations, is held by all to be in the essence, to which alone it belongs to be a nature, or a principle of motion. But the numerical difference would be a principle of action if greater intellectivity arose from it, since it would be the principle of understanding more clearly and perfectly. Certainly the intelligence of Augustine, compared with ordinary intelligence, to speak very moderately, stands as 100 to 20; therefore it surpasses the ordinary by about 80 degrees of activity. The principle of these degrees would be the numerical difference alone, since the specific difference is equal, or the same, in each intelligence. From this it would further follow that someone could be more intellective by virtue of the numerical difference than by virtue of the specific difference, and consequently that the numerical difference would be nobler than the specific, as being more truly a nature and more perfectly active.

98. The same minor premise is proved, 2º because that which renders a soul more intellective renders it greater in an essential predicate, since intellectivity is essential to the soul. But greater perfection in an essential predicate cannot arise from numerical difference, which lies outside the essence; and otherwise from this difference would arise greater perfection, and therefore inequality, in the essence, which according to all varies the species; therefore, etc. Or otherwise: greater intellectivity increases in the soul the formal effect of "being intellective," for the formal effect "to be intellective as 100" is greater than "to be intellective as 20," just as the formal effect "to be hot as 8" is greater than "to be hot as 4." Therefore that in which this greater perfection consists must formally be intellectivity, just as that which makes something hotter must formally be heat. Therefore this greater perfection cannot consist in a predicate outside the essence, such as numerical difference. The consequence is evident because otherwise it would follow that a predicate outside the essence would be formally of the same character as an essential predicate, since both differences, individual and essential, would formally be intellectivity; but this is no less repugnant than that the capacity for laughter and rationality should formally be of the same character. Furthermore, individuation in the metaphysical line is a mode of essence; but a mode cannot be of the same character as the thing it modifies, as is evident in physical things.

99. The same argument presses if, with Father Oviedo, the inequality of souls is said to arise not from the individual difference but from some predicate intermediate between essence and individuation, which is a metaphysical accident with respect to essence. For this accident would be the first root of operations and the first foundation of the intellectivity by which Augustine's intelligence surpasses ordinary ones, since that intellectivity does not arise immediately from the essence, nor mediately through it, because such an accident is not rooted in the essence; otherwise it would be a metaphysical property, which Oviedo denies. Furthermore, it would be of the same character as the essence, since it would render the essence greater and increase its formal effect; which is without doubt contrary to the concept of an accident. Moreover, although that predicate is called an accident with respect to the essence, to which it can be present or absent, it certainly is not an undue accident with respect to the individual in which it inheres by real identity. It is therefore due to this individual by reason of the individual difference; and consequently that difference will be the first root of the inequality, which Father Oviedo intends to avoid.

100. The same argument also presses if the inequality of souls is placed not in the power of understanding more clearly, but in this, that one soul by

a single cognition clear as two can attain two men, while another soul by one equally clear cognition can attain only one man. For from this it likewise follows that the intellectivity of one soul is greater than that of the other. This inequality between cognitions and souls undoubtedly pertains to the intellective line, just as the inequality by which fire A can illuminate two spaces simultaneously, while fire B with the same clarity can illuminate only one, pertains to the illuminative line. If, therefore, that greater intellectivity arises from the individual difference or from a metaphysical accident, the absurdities deduced in nn. 97 and 98 follow. Nor does it matter that this is greater perfection as it were extensively, for whatever renders a form or formal effect extensively greater must be of the same character as the form that denominates simply, as is evident in heat and other qualities.

101. *Confirmation 2:* If inequality among individuals under the same species can exist, specific diversity could never be inferred from inequality, however great. This consequence is absurd according to all, especially the adversaries, who teach that one individual cannot exceed another except by a "slight excess" which is not "notable." But it is proved by the example adduced by the adversaries. For if a cognition attaining one man does not differ in species from a cognition attaining two, neither will it differ in species from a cognition attaining a thousand men or a hundred thousand. This is evident: a cognition of one man is of the same species as a cognition of two, and for the same reason a cognition of two is of the same species as a cognition of three, by which it is surpassed with only a slight excess. Therefore a cognition of one and a cognition of three are also of the same species, for things which are specifically the same as one third thing are specifically the same with one another. For a similar reason a cognition of one will be of the same species as a cognition of four men, and so gradually onward to a thousand or to any number whatever. Nor may it be doubted that the principle, "Things which are the same as one third thing, etc.," also holds for specific identity. For if A and B are one and the same according to species, whatever is verified of the species of B is also verified of the species of A. Therefore, if it is verified of B that it is specifically identified with C, the same must be verified of A.

102. *It will be said:* Specific diversity depends upon a notable excess, namely one that is great in the judgment of prudent men; but such is the excess by which cognition of a thousand men exceeds cognition of one. But, first, this does not resolve the difficulty proposed, namely that since these cognitions are specifically identified with the intermediate cognitions, they must be specifically identified with one another. Next, specific distinction is without reason made dependent upon the judgment of prudent men. First,

because, as Father Quiros argues, it seems absurd that it should be left to the judgment of a good man whether God assumed a nature of our species. Second, because a lion and a horse differ in species independently of every extrinsic judgment. Third, because, since the judgments of men, even prudent men, are diverse, it could happen that a dog and a wolf, which among us differ in species, would among the Tartars be of the same species. I do not, however, maintain that species formally as predicables exist in reality, but only that there is a foundation by virtue of which entitatively unequal individuals cannot truly be univocally contained under a specific concept, namely one predicated of each completely as what it is, or "as its whole metaphysical essence."

Contrary Arguments.

103. *Objection 1:* It is not repugnant that one individual exceed another by a slight excess; for a cognition attaining three men is exceeded only slightly by a cognition attaining four at the same degree of clarity. But a slight excess does not ground specific diversity, for such diversity must be notable, or worthy of notice, and therefore not slight. Hence inequality of individuals without specific diversity is not repugnant. Confirmation 1: beatific visions, although unequal in clarity and in the manifestation of a greater number of possible things, are said by theologians to be of the same species. Confirmation 2: an acquired habit, when perfected, usually inclines toward acts clearer than those by which it was generated; yet it cannot incline toward acts specifically diverse. To the objection: granting the major premise concerning individuals not presupposed to be of the same species, I deny the minor premise, because an excess of perfection, however slight, since it cannot arise from individual difference, arises from an essential predicate and adds something to the specific essence, which it therefore necessarily varies. For essences are, as is commonly said, like numbers, which are varied by any addition or subtraction. Hence that excess introduces a notable diversity, for a diversity is regarded as notable when it does not arise precisely from the fact that this is not that but pertains to the essence of the species; for this essence in its entirety, with no slight formality excepted, is worthy of notice, that is, of scientific consideration. Therefore a cognition of four men differs in species from a cognition of three by reason of the mode of tending whereby it identifies with itself a broader tendency in the line of cognition.

104. *To confirmation 1:* Beatific visions differ in philosophical species, although they are of the same theological species, namely that taken from

the formal object, which is the Divine essence; from this aspect theologians derive specific identity. And the objection is pressed: because a very notable inequality exists among beatific visions, for the glory of Paul the Apostle does not surpass by a slight excess the glory of an infant dying immediately after baptism. *To 2⁰*: Admitting for present purposes that doctrine, we say that the clearer acts differ in species from the preceding ones, not indeed from the formal object, in which sense an acquired habit is said to incline only toward acts of the same species, but from the greater clarity which they identify with themselves concerning the same object and which cannot arise from individuation, since it increases the specific perfection of the acts.

105. *Objection 2:* Some dissimilarity can be found among individuals of the same species by reason of haecceity; therefore some inequality can also be found. The consequence is proved because dissimilarity is no less opposed to specific identity than inequality. If, therefore, a slight dissimilarity can nevertheless arise from haecceity without prejudice to specific identity, why not also a slight inequality? Confirmation: some individuals can have a greater similarity to one another than to others of the same species. For example, there is greater similarity among the possible unions by which Peter's body and soul can be united than between the unions of Peter and Paul. For the latter agree only in the character of a human union, while the former also agree in the character of a union of such termini; and yet both are of the same species, otherwise Peter and Paul would differ in species as constituted by specifically diverse unions. For the same reason there is greater similarity among Peter's ubications than between these and Paul's ubications; likewise greater similarity among combustive actions arising from fire A than between these same actions and those arising from fire B, yet the species of the ubications or actions are not thereby varied. Therefore some individuals will likewise be able to be more equal to one another than to others of the same species.

106. The objection proves that, just as all individuals are necessarily dissimilar by reason of haecceity, so they are necessarily unequal; yet, if the Thomists are excepted, this altogether displeases the other adversaries. Therefore I deny the consequence; and to the proof I distinguish the antecedent: dissimilarity is no less opposed to specific identity when it consists precisely in the fact that this is not that, or is necessarily derived from it, I deny; when it consists in something else, I grant the antecedent. Then in the consequent it must be denied that any dissimilarity can arise from haecceity other than that which necessarily derives from the fact that this is not that, or from numerical difference. But from this dissimilarity no inference can be made to an inequality of perfection, even slight; because

such inequality cannot be founded in individuation, since every individuation equally performs its one function, namely to modify or determine the nature of the species. Some dissimilarity, however, can and must be founded in it, because individuation, precisely insofar as it is a difference, is a dissimilarity.

107. *To the confirmation:* I admit that among individual modes some can be more similar to one another than to others of the same species, and the examples cited convince me of this, whatever others may say. Nevertheless, even in these cases the whole greater degree of similarity or dissimilarity is derived, and indeed necessarily, from the fact that this is not that, at least mediately. For from the fact that Peter is not Paul it necessarily arises that Peter's modes, as essentially tied to him, cannot modify Paul, nor conversely. Consequently, several of Peter's ubications, and understand the same of actions and unions, agree among themselves in modifying Peter rather than Paul and in this very respect are dissimilar to Paul's ubications. Hence this inequality of similarity does not introduce specific diversity, because it is not notable, that is, worthy of scientific notice; for the sciences do not care to notice, but rather disregard, purely numerical differences and consequently whatever necessarily results from those differences. Nor is it an inequality of perfection, because no perfection thereby accrues to Peter's ubications which is not compensated by another equivalent perfection in Paul's ubications. From this one will gather that the account of inequality of similarity is not the same as that of inequality of perfection, although many judge both in the same manner. For inequality of similarity can arise from numerical difference, as we have explained, and then has a certain rule by which it is distinguished from specific inequality, namely when it derives precisely from the fact that this is not that. Inequality of perfection, however, cannot stand in this way, as is clear from our proofs.

108. *Objection 3:* Specific inequality can stand with generic identity; therefore individual inequality can stand with specific identity. I deny the consequence, because generic perfection is not the measure of specific perfection. For the specific perfection of a difference does not consist precisely in the function of modifying or contracting the genus, but also in rooting the properties and operations of the species. From this aspect specific differences can and usually do differ in perfection. But specific perfection is the measure of individual perfection, since individuation is a pure mode of the specific essence whose whole function is to determine the essence so that it belong to this and not that individual. Furthermore, the objection is pressed because generic identity stands with specific inequality that is not only slight but great and very notable.

109. *Objection 4:* A cognition clear as one does not differ in species from a cognition of the same object clear as two, for they differ only according to more and less, just as grace as one differs from grace as two; and, as the proverb has it, "more and less do not vary the species." Therefore neither do two souls differ in species if one is productive only of cognition as one and the other of cognition as two, although those souls are unequal. I deny the antecedent, because it cannot arise from a predicate outside the essence that one cognition be twice as perfect as another in the line of cognition. Otherwise a cognition clear as one would not differ in species from a cognition clear as a thousand, because it too would differ only according to more and less; whence a soul of itself limited to clarity as one would be of the same species as a soul of itself capable of clarity as a thousand, which appears altogether absurd. Those cognitions therefore differ in species, not from the object but from the mode of tending, from which acts also customarily receive their specification. For a tendency identifying with itself greater clarity introduces a new species because it imports a new essential predicate, namely this identity. I presuppose from what was said, disp. 3, *De generatione*, n. 10, that the intension of cognition does not take place by real addition but is improper or virtual, consisting namely in this, that one simple cognition is entitatively more perfect than another. But if one wishes cognition to become clearer by the addition of degree to degree, even thus the greater clarity varies the incomplete species according to our principles concerning the heterogeneity of degrees, which apply also to grace and to every other intensifiable quality.

110. Moreover, more and less in intension, although they do not vary the complete species, vary the incomplete, as we said, disp. 3, *De generatione*, n. 73. Indeed, they always vary the species in that line in which they introduce inequality of perfection. For example, heat as eight and heat as one, even if intension is made through homogeneous degrees, differ in gradual or integral species. For the excess of seven degrees in heat as eight is not purely individual, since it does not derive precisely from the fact that this is not that, for it would suffice for this that each heat be as one, and moreover it increases the activity or principle of acting and the power of producing the formal effect of heat. For this reason also that excess is not outside the essence, but increases heat "according to essence," as St. Thomas teaches, II-II, q. 24, a. 4, ad 3. And certainly, given homogeneity, all the degrees are of the same character, and there is no reason why the first should be more essential than the others. Hence from both heat as 1 and heat as 8 there cannot be abstracted a common character predicated of each completely as what it is, or as its whole essence, unless heat as 8 is prescinded from its

integrity. Think the same concerning heat more and less extended; likewise concerning a fire one palm in size, which similarly differs in integral species from a fire two palms in size; or even a collection of one hundred men from a collection of ten, if it is considered as one thing by a unity of aggregation.

111. When, therefore, it is said that "more and less do not vary the species," the statement concerns a species prescinding from determinate integrity and physical magnitude, as is signified by the simple names of divisible things, such as "heat, whiteness, fire, water." For species taken in this way is equally verified of large and small individuals, intense and remiss, whole and mutilated, and indeed completely, provided the individuals themselves are taken with a similar precision, as is usually done. And it is in this sense that the question disputed thus far proceeds. For the question is not whether one individual can be more perfect than another through real addition, but whether it can be so because it indivisibly identifies with itself some perfection which the other lacks. Finally, observe that if a rational soul were created by God more perfectly operative than a human soul actually existing, it would constitute a rational animal specifically diverse. For "rational animal" is called an ultimate or lowest species only insofar as it imports that power of sensing and reasoning which in fact exists in men, to the exclusion of a greater one. See Father Quiros, disp. 78, n. 12.

CHAPTER VI.
Whether Equality of Entitative Perfection Can Stand with Specific Distinction of Souls.

112. This question also is common to individuals or species of any genus and is usually disputed here on occasion of the preceding one. Equality and inequality are names devised for quantity of bulk; whence there is another Aristotelian dictum: "Equal things are those whose quantity is one," that is, of one measure, for example an ell or two cubits. These names are nevertheless analogically extended to perfection, which belongs to each thing by identity. For this perfection, insofar as it is more or less estimable, is said to be "so great" or "to be valued so highly"; and just as it is called "great" or "small," "greater" or "less," in comparison with another, as when one Angel is compared with another, so it can be called "equal" or "unequal." Hence this estimability, which in reality is physical and essential goodness or betterness, according to the dictum of Augustine, VI, *De Trinitate*, c. 7, "In things which are not great by bulk, to be greater is the same as to be better," is commonly called "quantity of power" or "of perfection," and sometimes "transcendental quantity." We usually explain it by degrees, so that one

Angel, for example, is said to be perfect as three and another as four, etc., not because this quantity consists of degrees or physical parts, since it consists in something indivisible, or in predicates really identified, but because we do not know how otherwise to explain its magnitude or greatness. The sense of the question, therefore, is whether it can happen that two souls, or other things, differ in species and nevertheless be equally perfect, all things considered, so that although one lacks the specific predicate of the other, it nevertheless compensates for it by another dissimilar predicate which is equally estimable in the judgment, so to speak, of the Author of nature.

113. The Thomists deny this, according to whom every dissimilarity or diversity, especially specific diversity, necessarily imports inequality. A few of our authors also deny it with Father Vázquez, as does the Scotist Mastrius. But most of our authors affirm it, preceded by the Eximious Doctor, disp. 29, *Metaphysica*, sect. 3, n. 16, where, although he incidentally treats the negative opinion as probable, he nevertheless indicates that its foundations are ineffective and thus seems to have prepared the way for refuting it. Aversa, Calagurritano, the Scotist Pontius, and others concur. The affirmative opinion pleases me. Since it asserts possibility alone, it is sufficiently proved from the failure to show a repugnance, or from the solution of the objections to be given presently. But it is further positively established because dissimilarity or diversity does not necessarily import inequality; therefore equality of perfection can stand with specific diversity.

114. The antecedent is proved, 1º because, unless this is true, whenever diversity exists in any order, inequality will necessarily exist in that same order. But it is evident that this is false in the moral order, in which many things are judged equal although they are diverse not only physically but morally, as is evident in sales and exchanges, for example when a horse is sold for gold or exchanged for wheat. In these contracts equality must be observed by the prescription of commutative justice, and yet a horse and wheat differ greatly from one another morally. This is evident because they serve very different human uses. Therefore, just as things ordered to diverse physical functions or diverse natural effects differ physically, so things ordered to diverse human uses must differ morally. Furthermore, merit and reward are things of diverse genera in the moral order, yet there is no doubt that merit can be recompensed by an equal reward. There is also the common judgment of men, who, when comparing works of art, works of intelligence, or the intelligences themselves, often regard them as equally perfect although dissimilar; whence Sallust and Livy were once said to be "more equal than alike."

115. The same antecedent is proved, 2º because if dissimilarity necessarily prevented or introduced inequality, as dissimilarity increased or decreased, inequality ought from the same source to increase or decrease. But it is evident that matters are otherwise. For the heavens, from the aspect of incorruptibility which they possess according to the common and Thomistic opinion, are rendered more dissimilar to man than they would be if they were corruptible or consisted of matter of the same species as sublunary matter; for then they would be similar to man under the formality of being corruptible and in a physical part, whereas now they are dissimilar in both. Yet from this aspect the heavens are not rendered more unequal to man. For without doubt they would be surpassed more by man in entitative perfection if they were corruptible and constituted of similar matter; for they would then be more imperfect than they now are and consequently would stand farther from the perfection of man, by which they are now absolutely surpassed. The same argument can be made concerning supernatural cognition, which, if compared with the substance of an Angel, is rendered more dissimilar to the Angel by reason of its supernaturality than another natural cognition is; yet it is not rendered more unequal, since it is exceeded less in perfection.

116. It is proved, 3º by examples. The Divine Persons are dissimilar under the relative concept and yet entirely equal; and if all three assumed the same humanity, the three hypostatic unions would be notably dissimilar and nevertheless entirely equal. Likewise, two ubications of Peter, one at Rome and another at Madrid, or two durations of the same Peter, yesterday's and today's, are dissimilar; yet they display not even the slightest indication of inequality. Furthermore, many things are manifestly dissimilar which are not manifestly unequal, for example sapphire and emerald, or green and blue. *It will be said:* inequality is always manifest in dissimilar things, although it does not always appear which extreme is greater than the other. But this is rejected by the example with which the adversaries attack us. For two things cannot be manifestly unequal in quantity of bulk, for example two human bodies in stature, without its immediately appearing which is greater than the other. And indeed, just as the difference between the two statures is perceived by the eyes, so too is the difference between the colors green and blue.

117. It is proved, 4º, as it were *a priori*, because it is not repugnant for the physical estimability of one predicate to be perfectly compensated by another dissimilar one. But, given compensation, equality exists; therefore equality can coexist with dissimilarity. The major premise is proved first by the example of moral estimability, especially merit and reward, from n. 114.

Next, because it is not repugnant that one species be estimable or perfect as five, another as three, and another as two. Let us therefore posit this order of perfection in an eagle, a swan, and a dove. On this supposition, the excess of two degrees by which the eagle surpasses the swan will be compensated by the addition of the dove, so that the composite of swan and dove is equally as perfect as the eagle, since it contains three and two degrees of perfection, and therefore as many as are found in the eagle, namely five. But this compensation is made through predicates specifically dissimilar. Finally, because the individual perfection by which one individual differs from another of the same species, for example Peter from Paul, can be perfectly compensated by the individual perfection of the other. For it is not repugnant, indeed on our principles it is necessary, that within the same species two individuals be entirely equal. The other adversaries except the Thomists admit this, and it is sufficiently established from what was said in nn. 80 and 81 and throughout ch. 5.

Objections Are Answered.

118. *Objection 1:* There are several texts of Aristotle. In the first it is said that species are like numbers; therefore, just as diversity among numbers does not coexist with equality, neither does it among species. In the second, an order of prior and posterior, that is, of nobler and less noble, is said to exist among the differences contracting a genus. In the third, equivocations are said to lie hidden beneath a genus, that is, unequal species. In the fourth, specific differences are compared with one another as privation and habit are compared; but equality cannot exist between privation and habit. I answer that none of these texts is against us. Not the first, because Aristotle himself there, namely VIII, *Metaphysica*, t. 10, explains that species are compared with numbers insofar as the addition or subtraction of some predicate varies the species, just as the addition or subtraction of some unit varies a number. The comparison is therefore made not as regards inequality, except perhaps in fact, but only as regards variation. Not the second, because the Philosopher, III, *Metaphysica*, t. 11, does indeed teach that this order exists, which we admit, at least for the most part, but he does not teach that it is metaphysically necessary in every difference. Not the third, because similarly he speaks of fact or of what happens for the most part and does not say that the opposite is impossible. Not the fourth, because that comparison, X, *Metaphysica*, t. 17, is not made in all respects; otherwise one difference would be a mere negation of the other and, like a privation, would express no perfection. Therefore specific differences stand

as privation and habit insofar as they cannot coexist in one thing but one necessarily imports the exclusion of the other; yet this can coexist with equivalence in a dissimilar perfection. St. Thomas is also commonly objected against us, I, q. 47, a. 2, and q. 76, a. 3; likewise *Quaestio de spiritualibus creaturis*, a. 8, and *Quodlibeta* III, a. 6. But in these passages St. Thomas does indeed assert actual inequality of species, as of numbers; he does not, however, indicate that equality is repugnant or excluded for any reason other than the perfection of the universe.

119. *Objection 2:* Things which differ in species differ in specific perfection, for this perfection consists in the specific difference; therefore they differ in the quantity of specific perfection, since this quantity is indistinct from specific perfection estimable at such a value; therefore they are not equal in specific perfection. This consequence is evident because things whose quantity is not one and the same are not equal; but the quantity of specific perfection is not one and the same in things that differ in this very quantity, as is manifest; therefore, etc. Confirmation 1: two things cannot be diverse in quantity of bulk and yet not unequal in bulk; therefore neither can two things be diverse in quantity of perfection and yet not unequal in perfection. But things diverse in specific perfection are diverse in quantity of perfection, for in specific perfection to be diverse is the same as to be so great, or neither greater nor less, since it consists in something indivisible; therefore they cannot fail to be unequal in perfection. Confirmation 2: things are constituted in diverse specific being according to diverse specific perfection; therefore also according to diverse quantity of power, since this quantity is not distinguished from such perfection. Or otherwise: things are constituted in diverse species according to a diverse mode of participating in generic perfection; but a diverse mode of participating is greater or lesser perfection in participating; therefore. Confirmation 3: things agreeing in the same degree of specific perfection, for example as six, agree in the same species, because the essence of the species and the degree of specific perfection are really and formally the same; but things which are equal agree in the same degree of specific perfection; therefore they are of the same species.

120. The objection is pressed against several of the adversaries in the case of individuals of the same species, whose necessary inequality in individual perfection can be proved by the same argument. It is also pressed against all the adversaries in moral equality, which likewise could not exist between two things morally diverse, for example merit and reward, or bread and clothing, if someone wished to exchange bread for clothing while preserving the equality of justice; for in these things there could not be one

and the same quantity of moral estimability. Furthermore, the dictum "Equal things are those whose quantity is one," on which the whole objection rests, properly applies to quantity properly so called, such as quantity of bulk. But in specific perfection, which is called quantity only analogically or metaphorically and improperly, it ought to be verified only improperly, namely so that "one" need not signify formal unity by which two things can be univocally contained under the same specific concept, but only unity taken for equivalence. In this sense this and that are commonly said to be one and the same equivalently, for example merit and reward, or a horse and the money for which it is sold, and in natural things the sun and fire in the power of burning and illuminating. But equivalence coexists perfectly well with specific dissimilarity in the very respect in which two things are equivalent, as is evident from the same examples and also when someone, for the sake of pleasure, purchases music of lyre and song with a gold coin as a just and equal price; for who doubts that the ground of estimability in the music and in the gold coin is very dissimilar?

121. Accordingly, to the objection, granting the enthymeme, I deny the first consequence. In its proof I distinguish the major premise: things whose quantity, namely of power or perfection, is not one and the same either formally or equivalently are not equal, I grant; things whose quantity is not one and the same formally, or in relation to a univocal concept, I deny the major premise. Then I distinguish the minor premise: it is not one and the same formally, I grant; equivalently, I deny the minor premise and the consequence. It will be said that this solution begs the question, or answers by means of the conclusion, because for two things to be one equivalently and not formally sounds the same as for them to be equal and yet not similar in species. Very well. When, therefore, one argues against us that things cannot be equal unless they are one in quantity, while tacitly understanding specific unity, one says nothing except that things which are not of the same species cannot be equal. One is therefore merely repeating one's conclusion and nothing more. What wonder, then, if the opposite conclusion is given in reply? Accordingly, our solution is that nothing is opposed to us by saying that the quantity of equals is one, because "one" often admits the qualification "equivalently" when dissimilarity intervenes, as we have just shown by examples; and quantity of power which is one with such a qualification has a place among things specifically dissimilar. It remains for this to be attacked.

122. *To confirmation 1:* I deny the consequence, because quantity of bulk is everywhere presupposed homogeneous and of the same character, and admits no difference except according to more and less in local extension;

hence one such quantity cannot differ from another except precisely because it is greater or less. Think the same concerning numbers, in which only the number of units is considered while entitative diversity is disregarded. For the binary number of stones and the binary number of Angels are judged the same number or a number of the same character. Hence there is no difference among numbers except in that one contains more or fewer units than another and consequently is greater or less. But the quantity of specific perfection is not everywhere homogeneous; rather, it admits several very heterogeneous lines of increase and decrease, in which a great difference can exist from another source than greater or lesser perfection. Add a clear counterexample: two quantities of bulk, for example one palm and half a palm, cannot be unequal except because one has more homogeneous extension than the other, or because one contains the other and something beyond. Therefore neither could two species be unequal except because one contains more homogeneous perfection than the other. Therefore man and horse would differ only according to more and less of homogeneous perfection, no otherwise than a palm and half a palm, namely so that man would contain the capacity for neighing and something beyond.

123. *To confirmation 2:* The enthymeme is granted and does us no harm, since for quantity of power to be diverse is not the same as for it to be unequal. But in the superadded syllogism I deny the minor premise, which the adversaries do not prove. *To 3º:* I distinguish the major premise: things which agree in the same degree, when that degree is formally the same, agree in the same species, I grant; when it is the same only equivalently, I deny the major premise. Then I distinguish the minor premise: they agree in the same degree which is equivalently the same, I grant; which is necessarily also formally the same, I deny the minor premise and the consequence. Or I distinguish the consequence: they are equivalently of the same species, insofar as they belong to two species one of which is valued as highly as the other, I grant; they are formally of the same species, so that they can be univocally contained under the same specific concept, I deny the consequence. Thus one easily has the solution to the argument which Mastrius, taking it from Aureolus, calls inescapable and to himself most evident, and which alone the Complutensian College of St. Thomas also employs.

124. *Objection 3:* Things which are equal must be commensurated so that one is the measure of the other. But things specifically dissimilar cannot be thus commensurated, for according to Aristotle the measure and the measured must be homogeneous. Hence no one measures an hour of time or a pound of weight by an ell, but weight must be measured by weight,

duration by duration, and length by length. Therefore, etc. This objection equally proves against the adversaries, and against everyone, that diverse species cannot be unequal, since inequality likewise cannot be detected except by measurement; whence an ell and an hour, or an hour and a pound, are neither equal nor unequal. Therefore, just as the intellect, at least the Divine intellect, can compare two specifically diverse Angels so as to say which exceeds the other and by how much, so it can compare two species in such a way that neither is judged to be surpassed by the other. Accordingly, I deny the minor premise, nor does the attached proof stand against this. For what is said about a homogeneous measure concerns measures of bulk, duration, and weight, not the measure of entitative perfection, which can differ from the measured thing in species and even in genus, since according to the doctrine of Aristotle the first thing in each genus is the measure of the others, and the first being is the measure of all things. The commensuration of perfection can nevertheless analogically be called a comparison "by weight," insofar as we conceive this and that species, suspended on either side in the balance of judgment before an impartial appraiser, to be found equal in weight or moment.

125. *Objection 4:* Things which stand at unequal distances from the first Being, and also from non-being, are unequal; but things which differ in species stand at unequal distances from the first Being, namely God, and also from non-being or nothing; otherwise they would not be dissimilar. Therefore, etc. Confirmation: things which are equal participate equally in Divine perfection; therefore they are equally similar to God; therefore they cannot be dissimilar to one another, for things similar to one third thing are also similar to one another. To the objection, I deny the minor premise, because specific dissimilarity is not taken from unequal distance, or unequal approach to the first being, but from a diverse character of approach or diverse mode of distance. For since God, although formally most simple, eminently contains a manifold perfection infinitely variable and pertaining to diverse lines, nothing prevents several creatures from approaching Him equally through diverse lines, or being equally distant from Him. Likewise, nothing prevents them from receding equally from nothing although they stand very far apart from one another. Thus the two poles, Arctic and Antarctic, are equally distant from the center of the world although separated from one another by the greatest interval. To the confirmation: from the fact that two things equally participate in Divine perfection, which can occur in diverse modes since Divine perfection is eminently manifold, and therefore are equally similar to God, it follows at most that they are no less similar to one another than to God. It does not follow that they are

specifically similar to one another, because the similarity of creatures to God is never specific, nor does it exclude diversity greater than generic.

126. *Objection 5:* If one species can agree with another in quantity of perfection, it will be less distant from that species than from other unequal species; therefore specific differences will not all be maximally opposed to one another, contrary to the common doctrine. The objection absurdly proves that species A cannot be more unequal to species B than to C, lest it be less distant from C than from B. Hence the difference of man would be no farther from the difference of stone than from that of lion, and among the differences of Angels one would stand no farther from another than from the difference of an ant. Therefore I distinguish the consequence: they will not all be maximally opposed by an opposition of inequality, I grant; by an opposition of identity, both real and formal or specific, I deny the consequence. Here it must be noted that agreement in quantity of perfection is not necessarily an agreement of similarity, at least specific similarity, but is agreement improperly so called, meaning equivalence. I say "at least specific," because I would not refuse to admit that two equal species can in some way be called similar in degree of perfection and be univocally contained under a concept of being estimable to such a degree, or of having so much perfection. This concept, however, will not be specific but generic, since it is predicable of several things specifically diverse. Indeed, it will not even be properly generic but a certain transcendental concept transcending all the genera in which so great a perfection, for example as six, can be found, and transcending also the whole essence of the inferiors of which it is predicated.

127. To forestall other objections, observe the following. 1º Specific similarity is indeed a sufficient reason for equality, just as inequality is a sufficient reason for dissimilarity; but it is not the sole reason, nor are the two mutually convertible. Hence one argues badly thus: similarity grounds equality; therefore dissimilarity grounds inequality. Or thus: unequal things are always dissimilar; therefore dissimilar things are always unequal. Badly, I say, just as if one were to say: similarity imports distinction; therefore dissimilarity imports absence of distinction. Or again: similar things are always distinct; therefore distinct things are always similar. 2º From the fact that a genus is said to be contracted by differences as though by grades, one would wrongly infer that differences in perfection are like the steps of a staircase, one of which is always higher than another. First, because ultimate and subaltern species are rather called logical or metaphysical grades; whence it would follow that an ultimate species, for example the human species, as the lowest grade, is more imperfect than the genus animal as such

and than every other superior. Next, because here we are not speaking of subordinate differences, one of which is a grade toward another, but only of coordinate differences which equally and immediately contract the genus, for example fish and bird within the genus of brute animals, or dove and turtledove within the genus of birds. Finally, because everyone knows that among grades of this sort some are called superior to others not because of greater entitative perfection, for rather, the higher they are, the less perfection they explicate, but because of greater universality or amplitude in predication.

128. 3º In the Divine Trinity the unity of essence is not so much proved from the equality of the Persons as, conversely, the equality of the Persons from the unity of essence and nature, as may be seen in St. Thomas, I, q. 42, a. 1. Nevertheless, it must not be denied that in Divine things unity of essence can very well be inferred from equality of the Persons, not indeed by reason of the form, as though equality of perfection by its very terms inferred unity of essence, for otherwise it would everywhere infer not only specific but individual unity of essence, as in Divine things, but by reason of the matter, that is, of such equality. For since the Divine nature is unique and incapable of compensation by another perfection, if the Son is equal in perfection to the Father, whose nature is Divine, the Son necessarily has the same individual nature that is in the Father. Understand the same of the Holy Spirit. 4º Although it is not certainly established that all species of creatures are in fact unequal, this nevertheless seems more credible, because greater variety and beauty will thereby result in the universe. Hence, when St. Thomas asserts, I, q. 47, a. 2, that specific distinction "always requires inequality," he says that this is "for the perfection of the universe."

CHAPTER VII.
On the Separated Rational Soul.

129. Since the rational soul, because it is a spiritual and immortal substance, informs the body in such a way that it does not depend upon the body in its being, it must exist after a man's death separated from the body. It is therefore fitting to say something here also about this state of separation, although most things pertaining to it, because they are common to Angelic substances, are treated more fully by theologians in the treatise *De angelis*. *Question 1º, and principally:* whether the state of separation from the body is violent for the rational soul? This must altogether be denied, at least as regards violence properly so called. 1º Because perpetual conjunction with the body is not naturally due to the rational soul;

otherwise it would perpetually require a body in order to exist connaturally, whence it would be rendered absolutely dependent upon the body, although not as upon a cause, nevertheless as upon an intrinsic complement naturally due to it; and it would truly be said to be naturally incapable of existing without a body, as matter without form, or a body without quantity, or water without cold. Such dependence and incapacity conflict with the spirituality of the soul. 2º Because the soul understands more perfectly in the state of separation than of union, as I shall presently say. But since the soul naturally desires to unfold the highest perfection of understanding which it contains, it cannot be in a violent state when it is in the only state in which this natural appetite is fulfilled.

130. *Objection:* The state of union is natural to the soul; therefore the state of separation, as contrary to this state, must be contrary to nature and therefore violent. I distinguish the antecedent: it is natural as a state to be possessed perpetually, I deny; as a state to be possessed only for a time, I grant the antecedent. Then I distinguish the consequence: it is contrary to nature as a state to be possessed when the state of union is due, I grant; as a state to be possessed afterward, I deny the consequence. Each state is natural to the rational soul because each is naturally necessary to it: the first, that it may fulfill the function of soul or form of an organic body; the second, that it may fulfill the function of a spirit or intellective substance, to which it is natural to be able to understand without the ministry of the senses and to know spiritual objects immediately and quidditatively, which cannot be obtained in the state of union. Therefore the rational soul innately desires both, because in both it attains its end. For as the form of the body it regards the composite as its end; and as a spirit it is ordered to operate in an Angelic manner, or altogether independently of a material phantasm. "A natural appetite," says St. Thomas, I, *Physica*, lect. 15, "is nothing other than the ordering of some things according to their proper nature toward their end." Since, however, both ends and states cannot be possessed simultaneously, the soul desires both as to be possessed in successive order. Nor is it surprising that no other example of such an appetite is found. For the human soul is very singular in its being, in which it borders at once upon corporeal forms and Angelic substances.

131. Both ends will indeed be attained simultaneously in an incorruptible and glorious body; but the soul can have a body of this sort only through grace and miracle, whereas we are now speaking of those things which belong to it naturally. It must nevertheless be noted that the soul naturally requires the state of union to precede the state of separation. First, because a temporal state ought to precede a state which of itself is perpetual. Next,

because the function of the form of the human body ought to be fulfilled before the function of a spirit operating without the ministry of the senses, since the former is a differential function and the latter a generic one. *It will be said:* The human soul according to its specific difference is spiritual and intellective. I distinguish: it is spiritual and intellective with the ministry of the senses, or, what comes to the same thing, with conversion toward phantasms and with the imperfection that follows from this, namely that it can understand spiritual objects only abstractively and through species of bodies and must accommodate the use of reason to the organ of imagination, I grant; without such ministry and imperfection, I deny, for to be intellective in this mode belongs to the soul according to the character of spirit common to Angelic substances.

132. If it is asked which state is more connatural to the soul, I answer that the state of union is more natural. Thus Father Suárez, l. VI, *De anima*, c. 9, and this is plainly gathered from St. Thomas, I, q. 89, a. 1, and q. 118, a. 3. The reason is, 1º because that which belongs to something according to differential predicates is more natural than that which belongs to it according to common predicates. 2º Because in the state of union the soul not only attains its end of constituting the human composite but also exercises all its faculties and unfolds the whole variety of operations. For although it understands less perfectly, it nevertheless truly understands, and in addition causes man to vegetate and to sense in manifold ways, operations for which the state of separation is inept. Hence, with respect to the soul absolutely, the state of union is more perfect; for although in a certain respect it is exceeded by the state of separation, nevertheless the soul is better disposed in it, all things considered, since it both attains its formal effect and has more species of operations. We now prescind from supernatural elevation to glory and from deputation to eternal punishment; indeed, we also prescind from the natural beatitude which would correspond to the rational soul in a state of pure nature. Concerning this beatitude, for present purposes, see Father Suárez, cit. c. 9, n. 6. For it would not be due by a purely physical title but would also depend upon natural moral rectitude. We are therefore speaking here of purely physical naturalness.

133. But against what has been said thus far it is objected, 1º: neither state fully satisfies the requirement of the soul; therefore neither is fully natural, but each imports some violence. 2º The soul is separated from the body while resisting and unwilling; therefore it passes into a violent state. 3º St. Thomas, I, q. 118, a. 3, says that "to be without a body is contrary to the nature of the human soul"; and Father Suárez, l. I, *De anima*, c. 12, n. 21, admits that "the separated soul in some respect suffers violence"; and

elsewhere he calls the state of separation "preternatural." 4º The soul, because it is an incomplete substance and the form of the body, cannot naturally first be created outside the body; but the soul always remains an incomplete substance and the form of the body; therefore it can never exist naturally outside the body. 5º That which lasts longer is natural; but to be without the body lasts longer, indeed is naturally eternal, because resurrection is naturally impossible.

134. *I answer to 1º*: Neither state satisfies the requirement of the soul insofar as the soul regards the other state, but each satisfies it insofar as it regards that very state. Thus the state of infancy does not satisfy the requirement of man insofar as he regards the mature state, for which the use of reason and adult strength are required; yet because it satisfies the requirement insofar as it regards the infantile state itself, it therefore imports no violence. Each state, therefore, has its imperfections, since neither absolutely fulfills all the inclinations of the soul; but these imperfections are natural, since they follow upon the nature of the soul, just as the imperfections of infancy and old age are natural to man. Nor does an inclination presently unfulfilled suffer violence when it does not regard its terminus as something to be possessed now but as something to be possessed at its proper time. *To 2º*: The soul, ignorant of its future lot and fearing the Divine judgment, resists separation by an elicited appetite; but the innate resistance is not so much from the soul as from the union and from the disposition of the organic body. Perhaps also the soul, insofar as it is united to the body, innately seeks the good of the whole and therefore resists the corruption of man. But on the supposition that it has been released from the obligation of being an actual part, it attends to itself alone and enjoys the goods of the new state without violence.

135. *To 3º*: St. Thomas there disputes against the error of those who said that human souls were created before bodies. Therefore he is speaking of "being without a body" before the state of union, which we admit to be contrary to the nature of the soul. But St. Thomas calls the mode of operating which belongs to the soul after the state of this life "connatural," I-II, q. 5, a. 1, ad 2. Father Suárez speaks of violence and preternaturalness taken improperly for lesser naturalness; for he himself, l. VI, *De anima*, c. 9, recognizes that both states are natural, but the state of union more natural. *To 4º*: I deny the consequence, because although the soul, insofar as it is the form of the body by its own ultimate difference, requires that it first possess the state of union, it does not require that it possess it always, since it is also natural to the soul perfectly to discharge the function of an intellective substance. *To 5º*: What is longer-lasting is indeed more natural if other things

are equal; but this does not occur in the present case, since the state of union is more perfect and due to the soul according to its specific difference.

136. *Question 2º*: Whether the separated soul naturally desires union with the body? St. Thomas affirms this, I, q. 76, a. 1, ad 6, and often elsewhere; Father Suárez subscribes to it, l. VI, *De anima*, c. 10; and it can be proved because the natural or innate appetite by which the soul, when first created, desires union consists in its aptitude and natural ordination to constitute the composite. This aptitude and ordination, since they are identified with the substance of the soul, do not cease in the state of separation. Nor does it stand against this that union after separation is naturally impossible. For this proves that union is not desired insofar as it is reunion, or insofar as it is repeated union, namely with the state of separation functioning as an objective circumstance; but it does not prove that union is not desired in itself, prescinding from the extrinsic circumstances by which it is here and now rendered naturally impossible. See what was said in *Physica*, tr. 1, d. 3, c. 2, concerning the appetite of matter for corrupted forms; one must reason similarly here. Nor does it follow from this that the separated soul suffers violence, because although it then desires union, it does not desire it as something to be possessed then, but as something for the time which preceded, in such a way, however, that the appetite prescinds from precedence. As regards elicited appetite, the just soul in the state of separation actually desires union with an incorruptible body, which it knows to be future by the decree of God and very useful to itself. Concerning the elicited appetite for reunion when natural light alone is presupposed, see Father Suárez, cit. l. VI, c. 10.

137. *Question 3º*: Whether the soul, when separated from the body, changes its mode of being? The discussion concerns a substantial mode of being, under which name come existence, substance, and substantial union with a subject. I say 1º: when the soul is separated, it does not change its existence; otherwise it would change its essence, from which existence is not distinguished according to our principles. Indeed, even if existence were distinguished, the prior existence ought not to be lost, because it would be spiritual and therefore independent of the body; otherwise the soul, while informing, would depend upon the body in its being. I say 2º: it does not change its subsistence. Father Suárez proves this well, l. VI, *De anima*, c. 1, against Cajetan, who, III, q. 6, a. 3, seems to hold that the separated soul subsists through a new entity and is rendered a semi-person. The reason for the conclusion is that the human soul, while it informs, has its own incorporeal subsistence, since throughout it is a subsistent form independently of the body. Since this subsistence can remain outside the

body, it renders another new one superfluous. That the soul is called a semi-person and a semi-*suppositum* is an expression disapproved by others, but admitted by Father Suárez, loc. cit., in such a way, however, that it belongs no less to the united than to the separated soul. I say 3º: when the soul loses substantial union, it changes its mode of being by a merely negative change. The reason is that it passes to the negation of union without a new positive mode. It does indeed have a new mode of operating, but this does not argue a new positive mode of being, since it was already contained in the power of the soul and was merely impeded by association with the body.

138. *Question 4º*: Which of its previously possessed accidents does the separated soul carry with it? I answer, 1º: it carries with it the intellective and volitional powers. It is now presupposed that the powers are really distinguished from the soul; otherwise there is no question. It likewise carries the species and habits of those powers. The reason is that all these things are spiritual and therefore independent of the body and inhere in the soul alone. Indeed, if the separated soul lacked those powers, it could know and will nothing, which is repugnant to Faith and reason, as Father Suárez shows, cit. l. VI, *De anima*, c. 3, nn. 4 and 5. It must nevertheless be noted that natural vicious or imperfect habits in fact cease in the blessed soul by Divine ordination, as do also the supernatural habits of faith and hope according to theologians. But all supernatural habits abandon the damned soul as punishment for its preceding life. It must further be noted that, besides the species acquired in the body, several other species are naturally due to the separated soul, whether they are to be infused by God as Author of nature, or immediately abstracted or received from the objects, according to the diverse opinions of the Doctors, because the separated soul knows more things which it previously did not know. Otherwise, the soul of an infant, which acquires no intellectual species in the body, could naturally know nothing when separated and by its very nature would have to lack the use of reason eternally.

139. I answer, 2º: the material or organic powers, such as those which serve vegetation and sensation, the soul leaves with the body, or carries with it only in their root or virtually. The reason is first because such powers inhere in the body and depend upon it; next, because they are not so much properties of the soul in itself as of the whole man, or of the soul insofar as united to the body. Hence, when the man perishes, they must perish. I answer, 3º: the separated soul retains a power of locomotion over itself. This is certain and is proved first because this power cannot be lacking to the separated soul either under the title of perfection, since it belongs to Angels, or under the title of imperfection, since it belongs to brute animals. Next,

because rational souls in the state of separation could naturally live socially, since this is proper to a rational creature; therefore they could approach one another by local motion. Again, because it is absurd from the terms themselves that a rational soul should naturally have to remain immobile like a stone in the place where the man dies, indeed more immobile than a stone, which at least can move toward the center by its own power. Nor does it stand against this that the souls of the just are said to be carried by Angels into Paradise, for this denotes only the escort of Angels for the sake of honor. The souls of the damned, however, are dragged unwillingly into hell by demons. Nor does it stand against this that the soul cannot migrate from the body at will, nor, once separated, freely come to us. The first arises from the fact that union with the body is not free to the soul but naturally necessary so long as the disposition of the body remains; the second from the fact that God has assigned separated souls to determinate places for glory or punishment.

140. But it must here be noted that the human soul has a twofold motive power over itself: one organic, by which in the state of union it moves the members of the body and consequently itself, and this power it does not retain when separated; the other inorganic, or purely spiritual, by which it can move itself independently of the body after the manner of an Angel, and this it carries with it when separated. The organic power presupposes sensitive life; the inorganic, intellective life. If it is objected that the inorganic motive power would remain altogether idle while the man lives, Mastrius, disp. 8, *De anima*, n. 28 sqq., proposes and weighs various solutions from the Subtle Doctor. For my part, I deny the consequence, because while the united soul moves the body, it is itself simultaneously moved by an incorporeal motion. For it acquires a new spiritual ubication, which cannot be produced by a merely corporeal motion; therefore it simultaneously exercises with respect to itself the incorporeal or inorganic motive power. Since, however, this power in the state of union necessarily follows by its own motion the motion of the body and presupposes it as a condition prior in the order of nature, the united soul is therefore said to move itself not primarily and of itself but accidentally, or consequently upon the motion of the body. For this reason also the motion of the soul, as a necessary consequence of corporeal motion, is said to be from the organic power, namely as from a determining cause. Accordingly, the inorganic motive power can indeed be freely exercised in the state of separation; but during union it depends in operating upon the organic power, just as the intellect, during the state of union, depends in some way upon the imagination

although afterward it in no way depends upon it. By this example whatever difficulty occurs can be resolved.

141. *Question 5º*: Whether the separated soul can move things other than itself, for example a stone? St. Thomas denies this, I, q. 117, a. 4; Father Suárez also denies it both in l. VI, *De anima*, c. 2, and disp. 35, *Metaphysica*, sect. 6, n. 23. The foundation is that, since the soul by its very nature is the form of the body, it can operate nothing *ad extra* except through the body as an instrument naturally united to it. Scotus holds the contrary, IV, d. 49, q. 14; likewise Henry, Aureolus, and others cited by the Conimbricenses, tract. *De anima separata*, disp. 6, a. 2. The foundation is that the rational soul has not only the function of form but also that of a spirit operating independently of the body. Hence the separated soul imitates an Angel, just as in understanding without the ministry of the body, so also in moving bodies and other things distinct from itself, although its power both for moving and for understanding is less than an Angel's. This opinion is sufficiently probable.

142. *Question 6º*: What does the separated soul understand, and in what manner? The discussion always concerns the soul according to its natural powers, prescinding from those things which belong to it as supernaturally blessed or assigned to punishment. In this sense, first, the separated soul knows its own substance quidditatively and intuitively, since it is most present to itself and proportioned to its own intellect in cognizable being, and no longer has an impediment from the body preventing it from fulfilling its natural appetite to know itself completely and contemplate itself without a veil. Indeed, it also knows itself comprehensively, because it is not more intelligible than intellective. Hence it also clearly knows its properties and accidents, that is, its powers, species, habits, and acts. Whether, however, it understands itself through an impressed species or immediately through itself is doubtful; concerning this see Father Suárez, l. VI, *De anima*, c. 5.

143. Next, it knows the other separated souls and also Angelic substances quidditatively, or through proper species directly and immediately representing their quiddity. The reason is that every intellect is naturally capable of knowing souls and Angels in this manner, and moreover there is due to the separated soul a proper species of those objects or the power to acquire it: first, because no other objects are more akin to it or toward them is there a more ready and immediate appetite for knowledge; next, because the separated soul naturally requires intercourse and society with the other spirits, whom it therefore naturally requires to know well. Hence it also knows those same spirits which actually exist in the individual and intuitively, that is, as actually existing, because otherwise it could not

establish social life with them. Nor does it stand against this that St. Thomas, I, q. 89, a. 2, calls the separated soul's cognition of Angels "imperfect and deficient," for he speaks comparatively with respect to the much clearer cognition by which Angels know themselves, as may be seen in *Quaestio de anima*, a. 17, c.

144. Furthermore, it appears more probable that the separated soul can easily know all natural things, even corporeal ones, quidditatively as regards their specific essence, and consequently can easily acquire all the natural sciences. For it undoubtedly has sufficient intellectual light, and moreover it is not impeded by a defect of species, because either it draws species from the objects, as Scotus holds, and thus will without labor draw whatever species it wishes; or it receives them infused by God as Author of nature, as St. Thomas holds, and thus it must naturally receive all those required by its innate appetite for knowledge. The case is otherwise with corporeal things in the individual, because species of these are due neither on account of the appetite for knowledge, since they do not pertain to science, nor on account of use or civil intercourse, since the separated soul has no use of, or society with, corporeal things. Therefore the separated soul does not newly acquire cognition of the singular things of the corporeal world or of contingent events occurring there, except perhaps through the reports of Angels or souls which subsequently depart from here. Much less does it know future contingents and the secrets of hearts, since these are unknown even to Angels. Nevertheless it retains the memory of events and singular things which it knew in the body, as is evident from what is said of the rich banqueter, Luke 16. Finally, the separated soul knows God, indeed abstractively, but better than when united to the body, because it knows Him from effects more perfectly penetrated, especially from its own substance and Angelic substance, in which the image of God vividly shines forth. All these things accord with the common opinion of the Doctors.

145. From these things it is plainly gathered that the separated soul understands better and more perfectly than the united soul, since it penetrates both itself and other souls and Angels and the quiddities of corporeal things better, and thereby also acquires a greater cognition of God. St. Thomas seems to hold the contrary, I, q. 89, a. 1, where he indicates that the soul united to the body understands better and outside the body receives only a confused and common cognition of things. But this teaching appears difficult to understand, since St. Thomas himself in the following a. 2, and more fully in *Quaestio de anima*, a. 17, attributes to the separated soul a perfect cognition of itself and of other separated souls, which cognition the soul certainly does not have in the body, and a cognition of Angels through

proper species infused by God, species certainly proportioned to the soul, since according to St. Thomas in that a. 1, ad 3, they are infused by God as Author of nature, and consequently a quidditative cognition such as does not exist in this life, in which we cannot know spiritual substances "by understanding what they are, but what they are not," as St. Thomas teaches, *Quaestio de anima*, a. 16.

146. Furthermore, St. Thomas, cit. q. 89, a. 2, ad 1, alluding to Wis. 9, "The body which is corrupted weighs down the soul, etc.," says that the separated soul "is in a certain manner freer for understanding, because through the weight of the body it is impeded from purity of understanding." Furthermore, a confused and common cognition of Angels does not suffice for the society which the soul ought to have with them according to St. Thomas, cit. a. 17, *Quaestio de anima*. It therefore seems that St. Thomas in that a. 1 must be interpreted as speaking of the intelligence due to the soul according to the ultimate specific difference by which it is the form of the human body, and not of the intelligence due to it according to the concept and function of a spirit capable of society with Angels and of operating in an Angelic manner.

DISPUTATION III.

ON THE DIVISIBILITY OF THE MATERIAL SOUL.

Concerning the substance of the material soul, which belongs to brutes and plants, nothing remains to be discussed except integral divisibility. For it is evident from what was said in disp. I, especially in the last chapter, that it is a soul in the proper sense of the name and a true principle of vital operation, which in brutes is cognition and nutrition, and in plants mere vegetation. It is also evident from what was said that it is corporeal, or dependent upon a body, since it has no operation except a corporeal one; and consequently that it is mortal, or corruptible, and is necessarily corrupted when it ceases to be sustained by matter. Finally, it is evident from what was said in the Physics concerning substantial form in general that a soul of this kind is an incomplete substance, distinct from all matter, and essentially simple, that is, not physically composed of substantial act and potency; otherwise it would not be the first principle of a natural body, nor could it be received in another subject. Therefore the only question remaining concerns integral composition: namely, whether the material soul consists of parts extended in the body and continuatively united, one of which is in the head, another in the breast, etc.; or whether, on the contrary, it is an altogether indivisible entity, whole in every part of the body, after the manner of the rational soul.

CHAPTER I.
The True Opinion Is Chosen and Proved.

1. The first opinion teaches that all material souls, even those of plants, are indivisible. Thus Plato, Porphyry, Nemesius, and other ancients, cited by P. Suárez, I *De anima*, c. 13. But as regards the souls of plants, almost everyone today dissents, judging it evident that a cut branch carries away with it a part of the soul, since, when planted elsewhere, it puts forth roots and vegetates separately, as experience everywhere teaches, for example in a shoot of a vine. Indeed, it is sometimes seen to vegetate for some time even though neither planted anywhere nor grafted. The second opinion holds that only, and all, sensitive souls are indivisible. Thus, among our Fathers, Maurus, Lynce, Quirós, and some more recent authors. But this opinion also is commonly rejected throughout the Schools by the famous experiment of a lizard's tail, or part of a worm, which, when cut off and separated from the rest of the body while retaining life, moves for a long time and crawls or walks; and, if pricked, gives signs of pain by drawing back or writhing. For these indications of life, first, cannot proceed from the indivisible soul of the whole worm unless that soul simultaneously informs two discontinuous parts of matter separated in place, which all hold to be naturally impossible. Next, they cannot proceed from the vital spirits alone: both because spirits are quickly dissipated in a dead part; and because whatever motions they produce are disorderly and irregular, as sometimes happens in a human head or heart when suddenly and violently torn away, whereas in the parts of a severed worm progressive, orderly motion is observed, avoiding an obstacle; and especially because the sense of pain cannot arise from spirits alone.

2. Finally, neither can they arise from a new soul suddenly produced by God in the lizard's tail, as some maintain. For if the new soul is incomplete and partial, that is, ordered of itself to constitute together with other parts a total soul, then an integrally composite sensitive soul is already admitted in fact. But if it is complete or total, it will be a purely sensitive soul, not a vegetative one, a soul which in fact no one admits; for a vegetative soul cannot naturally be introduced into matter lacking the organs and functions necessary for nutrition, namely mouth, stomach, etc., as the lizard's tail does. The objection is pressed: either that new total soul is of itself naturally apt to inform the entire body of the lizard, or it is not. The first cannot be said, for that such a soul should exist in the tail alone, where it lacks the principal parts of the body due to it and any disposition for acquiring them,

appears no less naturally impossible than that a rational soul should exist in a foot alone. Nor can the second be said: both because it thereby becomes clearer that such a soul is not vegetative; and because, since nature does not organize the tail except that it may be a part of the whole lizard, it is contrary to nature that a total soul, expressing no order of a part toward another soul, should be destined for the tail alone. Add that by means of a new soul in a severed branch the indivisibility of a plant's soul could likewise be defended, and indeed that of the form of any inanimate body, for example a stone or fire. It remains, therefore, that the aforesaid indications of life proceed from a part of the divisible soul animating the whole body of the lizard.

3. The third opinion attributes an indivisible soul to perfect animals, but a divisible one to imperfect animals, as to plants. Perfect animals are those which have a more elaborate and heterogeneous organization and, when cut into parts, die immediately, or live in only one part, such as the horse, lion, dog, etc.; imperfect animals are called annulate animals, which have a rougher organization and, when cut into parts, live in each part, such as the snake, lizard, worm, etc. This third opinion, then, is common among Thomists, with whom P. Suárez agreed in the posthumous work *De anima*, l. I, c. 13. He had written that work as a young man and was revising it for the press in old age when a precious death took him from the world before the revision of his more mature judgment reached c. 13, l. I; that revision would doubtless have retracted this opinion again, as it had already been retracted in the *Metaphysica*. Yet this opinion cannot, like the first and second, be rejected by experience; it is, however, immediately rejected by reason. The fourth and, in my judgment, true opinion holds that all material souls are in fact divisible, or integrally composite. Thus the Scotists with the Subtle Doctor, Durandus, Capreolus, Giles, and other ancients; and almost all our authors agree with them, together with the Excellent Doctor, disp. 15, *Metaphysica*, s. 10, n. 32, who also in I *De anima*, c. 2, n. 19, revised in his final labors, judges this opinion "most probable."

4. *It is proved* by a common but effective argument. When, for example, a lion nourishes itself, a new part of the leonine soul is educed from the new part of matter acquired through nutrition; therefore the soul of the lion, and consequently every other material soul, is composed of integral parts. *The antecedent is proved:* the soul of the lion is truly educed from the matter acquired through nutrition; but the soul pre-existing in the original matter is not educed; therefore a new partial soul, or a new part of the soul, is educed. The premises must be proved separately. And first, *the major is proved:* the lion's soul is educed from the subject by which it is sustained, or upon which

it depends as upon a material cause, since the passion which is material causality is not really distinct from eduction, according to the common Thomistic opinion; but the lion's soul depends, as upon the subject of sustentation and material cause, upon the matter acquired through nutrition; therefore it is educed from it. *The minor is proved:* the lion's soul informs that matter, as is certain; therefore it depends upon it. *The consequence is proved:* because if it depends only upon the original matter while informing the new matter, it will be in a place where its passion and material causality are not, namely in the place of the new matter, which is continued with the original matter but does not penetrate it. For in that place there certainly is not the passion and causality, or reception, of the original matter, since this is an intrinsic mode of that matter.

5. But that a material soul cannot naturally be in a place where its passion is not, is evident: 1º by induction through all other material forms, both substantial forms of inanimate things and accidental forms, such as quantity, heat, etc.; 2º because such a soul cannot exist in a place where it is not materially caused and actually dependent upon matter; for otherwise it would there cease to have the condition of a material form, and could also exist in a place where it had not actually been produced, especially since production and passion are really the same. But in a place where the passion is not, the lion's soul is not materially caused nor actually dependent upon matter, since it is caused and depends only through passion. Thus water existing in place A would not be hot there unless heat existed there, even if by the benefit of bilocation it possessed heat elsewhere.

6. *Confirmation 1:* according to St. Thomas, *Summa Theologiae* I, q. 119, a. 1, ad 2, where he also cites Aristotle, the matter acquired through nutrition is mingled with the original matter as water is mingled with wine; hence parts of the original matter which previously were immediately continuous afterward stand apart from one another because parts of the new matter are interposed. Therefore, if the lion's soul is educed from and depends upon the original matter alone, it will depend discontinuously upon parts of matter separated in place, without dependence upon the intervening parts; which of itself appears absurd and contrary to common sense. *Confirmation 2:* in living things even the original matter is dissolved by the action of natural heat and is repaired by the matter of food, as St. Thomas expressly holds, loc. cit.; therefore within some period a lion can lose all the matter of its first animation. If, then, the lion's soul depends only upon that matter, it will be able to remain naturally without any subject of sustentation, or without matter upon which it depends; which unquestionably conflicts with

a material form. This confirmation has force against the Thomists, not against others who hold the original matter to be incapable of being lost.

7. *It may be said:* as soon as the original matter is lost, a portion of nutritive matter is substituted in the office of sustaining subject, from which the same soul is educed through a conserving action proceeding from God alone. But this evasion does not help the Thomists, who, as may be seen in Colleg. S. Thomae, II *De anima*, q. 2, n. 111, do not admit a new eduction from the matter of food. Moreover, it is rejected because the eduction, although it is from a divisible subject, will be indivisible just as the soul itself is, as the opponents concede, expressly the same Collegium, ibid., n. 114. Therefore, whatever particle of matter, whether original or substituted, is lost, the whole eduction ought to perish and a new one succeed it. Since, then, at almost every moment some particle of either matter is dissolved, the eduction of the whole soul will be changed at almost every moment; which no one will tolerate.

8. Now that *minor* from n. 4, namely that the pre-existing soul is not educed from nutritive matter, *is proved* effectively: because such an eduction cannot proceed from the soul itself unless it is the cause of itself, which is repugnant. Nor, furthermore, does it proceed from God alone, as some maintain; for such an eduction is nutrition, since it is the conversion of food into the substance of the thing nourished. It is therefore an action vital to the lion; hence it is from an intrinsic principle, and consequently not from God alone. The same argument presses even if passion is held distinct from action and the lion′s soul is said merely to acquire a new passion, or a new dependence upon nutritive matter. For the lion′s soul acquires that passion vitally, and consequently through an action from an intrinsic principle; and since that action is not the production of the passion of the form alone, for this is unheard of, but must regard the same terminus which the passion regards, it will be a production of the form itself. Hence it follows that the lion′s soul produces itself.

9. *Confirmation 1:* a new eduction of a pre-existing soul would presuppose, as prior by nature, the existence of its own terminus; but this is repugnant, at least naturally; therefore. *The major is proved:* because in the instant of nutrition, as prior by nature to the new eduction, the ultimate disposition of the new matter for animation is presupposed; but this disposition is caused by the pre-existing soul, whose office it is to prepare and finally dispose the matter of food for animation. Therefore that soul, which is the terminus of the new eduction, is presupposed as actually causing, and consequently as existing, prior by nature. And hence *Confirmation 2:* because that new eduction would be joined in the same

instant with the preceding eduction of the same soul from the original matter, since the soul is presupposed already existing in that matter when it acquires new matter through nutrition. But the preceding eduction, as being by itself sufficient to place its terminus in reality, is an adequate or total action; therefore a new eduction of the pre-existing soul is superadded to a total action, which is naturally repugnant, and among the Thomists repugnant even by divine power.

10. From what has been said you will easily reject the doctrine of the Thomists in Colleg. S. Thomae, cit., n. 111, namely that the pre-existing soul, without a new total or partial eduction, extends its dependence in nutrition to the new part of matter, "not by reason of the part, but by reason of the whole of which it has become a part." These last words signify only that the new part of matter is animated because it becomes a part of the whole lion, whereas otherwise it would not be animated. Apart from this, the Thomists cannot deny that the soul truly informs that new part as distinct from the others, although not as divided, and consequently truly depends upon it as upon a partial subject. I therefore ask whether the pre-existing soul depends upon the new part of matter through the same indivisible dependence through which it depends upon the original matter, or through an added dependence.

11. If they say the first, as indeed they seem to say, it will first be remarkable that the same dependence or passion which is the proper causality and mode of the original matter should in the course of time become the mode and causality of new matter; that it should extend to a new partial subject and become the ultimate and formal determination of that subject for passive causation, although it is really separable from it. This is the same as if the action of a fire one palm in size should afterward, without any addition, become the action of an entire fire two palms in size; nothing could be more contrary to the concept of action and causality. Next, if all the original matter is dissolved, as it can be according to St. Thomas, supra n. 6, the same preceding eduction and dependence will remain without the whole subject to which it was previously essentially bound. This would be most remarkable, no less than if a union remained without an extreme, or location without the body which it originally modified. It also follows that the lion's soul will remain united to the matter which it loses; for according to the Thomists, union, even as regards denomination, consists precisely in the entities of matter and soul, while connoting the generative action. But when the original matter is lost, the entities of that matter and of the soul remain; and besides, according to the given response, the generative action also remains, since the soul retains the same eduction

and dependence which it previously had in the matter now lost. Finally, the dependence of the soul upon newly informed matter will not have been acquired vitally, since it cannot be from an intrinsic principle; for the soul cannot cause the eduction and dependence by which it depends upon the original matter, since that is from the generator and terminates in the soul itself, which cannot be the cause of itself.

12. But if they choose the second, first, that dependence will be superadded to the dependence or passion previously possessed, which certainly was total, as being sufficient for the soul to be passively caused and sustained. Therefore there will simultaneously be a twofold total passive causality of the same soul, or one total and another partial; and in these there is the same repugnance as in active causalities. Next, a new eduction must also be posited: both because without a new action there is no new passive dependence, or new passion, since either they are really the same or at least are mutually connected; and because that dependence is acquired vitally and therefore through an action of the soul, which the preceding eduction is not. If perhaps they say that a new dependence is not superadded, but rather a new extension of the same preceding dependence, the contrary follows both because it cannot be explained in what the new extension consists without the addition of dependence, and because that extension makes the soul depend upon, and consequently be passively caused by, a new partial subject. Therefore either the extension itself is formally dependence and passive causality, or at least by reason of it the causality of the original matter again becomes the causality of another matter; and in the preceding number we saw how absurd this is.

13. The sum of our proof is that a material soul, if it is indivisible, will not be nutritive. For it cannot cause nutrition after the manner of the rational soul, namely by informing the matter of food without dependence, because it cannot be in a place where its passion and subject of sustentation are not. And on the other hand it cannot depend upon new matter except by educing itself, and indeed through an action superadded to a total action. Since, therefore, it is certain that every material soul is nutritive, none can be called indivisible.

14. Against the Thomists two other proofs may be added from their own principles. *The first:* a material soul depends upon its subject in becoming and being conserved no less than accidental forms do; therefore, just as an accident cannot change its subject, even an inadequate one, as the Thomists teach where the resolution of a composite down to prime matter is discussed, so neither can a material soul change its subject. But if it is indivisible, it certainly changes its subject when it is received in the matter

of food after the original matter has been lost wholly or in part. At least it is utterly certain that change of subject is much more repugnant to eduction and passive dependence than to an absolute accident. Therefore what the Thomists teach in the present matter cannot occur, namely that the same eduction and dependence which the soul previously had in the original matter is extended to new matter, especially when that matter is dissolved.

15. *The second:* according to the Thomists, the nature of body consists in the radical extension of parts, or in an exigency for having extended parts, and therefore a body without integral parts is repugnant. Since, then, a material soul is corporeal, it ought to require extended parts, and consequently cannot be indivisible. The Complutensian College of St. Thomas, II *De anima*, q. 1, a. 3, is reluctant to have the Thomists accused of inconsistency in this matter, because, it says, a body and a corporeal thing are not the same. A body indeed requires extension of parts; but a corporeal thing, such as the soul of a perfect brute, is rendered such by dependence upon a body, although in itself it lacks parts; just as, according to the authors of the Society, impenetrability belongs to the concept of body, and yet a penetrable corporeal thing can exist. But this very solution is advanced by the Thomists with little consistency. For that is called body substantivally which is the first root of quantity and demands for itself a quantity by which it is affected; so the same College expressly teaches, cit. q. 1, nn. 123, 130. But the soul of a lion is the first root of quantity and demands it for itself, so as to be affected by it; therefore this soul is a body substantivally so called, whose concept includes divisibility according to the Thomists. *The minor is proved:* because the lion's soul is the first root of the accidents of the composite, and therefore of quantity, as the Thomists especially maintain. It also demands quantity for itself and is affected by it, since among the Thomists, see disp. II *De generatione*, c. 5, quantity and every other accident is received in the whole composite and inheres in the whole, and consequently affects not only matter but form together with it.

16. The point is pressed: according to the same College, cit. n. 123, prime matter cannot be indivisible because it demands for itself a quantity by which it is affected; but this reason applies no less, indeed more, to the leonine soul; therefore. *The minor* is evident from the Thomistic doctrine concerning the reception of accidents in the whole composite; for prime matter is not the whole composite, but is so together with form, such that form is the principal part of the composite, and only by reason of it is matter capable of receiving accidents, as the Thomists maintain. Therefore, just as according to them matter, because it exists only by reason of form, does not

demand existence more than form does, nor is more affected by it than form, but perhaps less, so they are bound to say of quantity.

17. Moreover, it is astonishing that the College of St. Thomas, cit. n. 130, unhesitatingly asserts "that body, substantivally so called, is matter alone in the genus of substance." For nothing is more solemnly held throughout the Schools than that body in the genus of substance is predicated substantivally of the whole composite of matter and form, since it is one of the metaphysical grades directly placed in the category of substance, as are living thing, animal, etc. It is also astonishing that the same College says there that matter alone "is the first root of quantity." For if this is true, why do the Thomists dissent from our authors with P. Suárez, who assert that quantity is a property of prime matter, coeval with it and not corrupted in the resolution of the composite? If the first root of quantity is matter alone, if matter alone demands for itself the quantity by which it is affected, according to the same College, n. 123, what, I ask, can quantity lack in order to be a property of matter and to accompany matter incorruptibly in every composite?

CHAPTER II.
Contrary Arguments Are Resolved.

18. *Objection 1,* on behalf of the Thomists: the separated parts of a perfect brute do not live, as is evident in the foot or tail of a lion; therefore a perfect brute consists of an indivisible soul. *The consequence is proved,* 1º because the reason by which a divisible soul is proved in imperfect brutes thereby ceases; 2º because divisibility ought to be denied where no indication of it appears, and a multiplicity of parts in a soul is idle if those parts cannot be preserved in divided parts of the subject; 3º because an indivisible and material soul is possible; therefore it ought in fact to exist, since, as constituting a new grade of soul, it belongs to the perfection of the universe. But if it exists, it certainly exists in that brute whose parts cannot live separately.

19. 4º Because a soul which does not inform the parts of matter except insofar as they are perfectly consonant with one another and united into one body, such that a part deficient in perfect consonance and union with the others immediately ceases to be animated, such a soul, I say, informs a divisible subject in an indivisible mode; therefore it is itself indivisible. *The antecedent is evident:* both from the example of the rational soul, which is established as informing a divisible body indivisibly for no other reason; and because such a soul does not regard the whole and the parts indifferently, for otherwise it could be preserved in any part, as the form of fire or the soul of

a lizard can; and because if a part of the soul corresponds to a part of the subject, it will not depend upon union with the others, just as one part of the subject does not depend upon the rest. 5º Because St. Thomas, II *Contra Gentiles*, c. 72, says that the soul of a perfect brute is whole in every part of the body and calls it a simple form; and *Summa Theologiae* I, q. 76, a. 8, denies that such a soul is divided accidentally upon the division of quantity, because, he says, "a form which requires diversity in the parts, as does the soul, and especially the soul of perfect animals, does not stand in the same relation to the whole and to the parts."

20. The objection is pressed in the case of a lizard, which, if cut into the smallest possible parts, or divided in a straight line from head to tail, no longer lives; therefore it will consist of a soul indivisible in the direction of breadth, or at least not having as many particles as there are in the body. Likewise in the leaf of a tree or in a fruit which, when separated from the tree and cut into pieces, no longer vegetates. Likewise in the soul of a worm or plant in relation to the natural minimum; indeed in every material form, for example the form of fire, which according to the Thomists has its natural minimum, or a definite limit of smallness in divisible matter, such that if any particle of that matter is lacking the form cannot be preserved. For such a soul or form, insofar as it actuates a divisible minimum subject, will be indivisible if the objection proves anything. Therefore *I deny the consequence,* notwithstanding the proofs.

21. *To 1º*: although in a perfect brute that reason drawn from experience which applies to an imperfect brute ceases, another stronger and more universal reason presses, which we gave in the proof. Therefore, that the parts of a perfect rather than an imperfect brute cannot be mutually separated while remaining does not arise from greater entitative simplicity of the soul, but from the greater connection and natural dependence of its parts upon one another. Thus the form of earth does not perish when reduced to the finest powder, whereas the form of fire perishes when divided into sparks; yet the entitative simplicity of one is not therefore greater than that of the other. The opponents themselves must admit the same regarding the form of a plant, or even of fire, insofar as it informs a natural minimum. Perhaps also that difference between the two kinds of brute arises from the fact that, according to a probable opinion, in an imperfect brute the common sense and appetite extend throughout the whole spinal column, whereas in a perfect brute they are not outside the head. Hence life can be preserved in the severed tail of a lizard because of communication with the principal powers of the soul, some part of which remain there; but not so in the severed foot of a lion, because that communication is lacking.

22. *To 2°*: a sufficient indication or argument for the real distinction of parts is that one part of the soul really produces another, as must necessarily happen in the nutrition of a perfect brute no less than in that of a lizard or plant. There is added the separability of the parts, at least not mutual separability, namely when some parts of the lion's soul remain while others perish, namely those which depended upon matter already dissolved by the action of heat. Nor is a multiplicity of parts posited idly; it is altogether necessary in order to preserve nutrition in every kind of brute.

23. *To 3°, I distinguish the antecedent:* if that soul is sensitive only, or incapable of nutrition, *let it pass*; and ask the opponents whether such a soul belongs to the perfection of the universe, and where it exists. If that soul is truly vegetative or nutritive, as in fact the soul of every brute is, *I deny the antecedent and the consequence,* for the repugnance of a soul of that kind is sufficiently evident from the proof of our opinion. *It may be said:* why could there not be a material soul which is preserved by God through creation and thus causes nutrition without increase of itself, just as the rational soul does? But I ask whether that soul by its own nature demands to be preserved through creation. If this is asserted, then it also demands first to be produced through creation, and consequently does not seem to be material, since it is independent of matter in becoming and being preserved and is not otherwise modally bound to matter. If this is denied, then by its own nature it depends upon matter and consequently cannot naturally cause nutrition without increase of itself, as is evident from our proof. Moreover, even if a soul of this sort be admitted as possible, the opponents gain nothing from it, since it is certain that every material soul in fact is preserved through eduction. Finally, this third proof may be pressed thus: a soul of a plant, or even the form of a stone, which is indivisible is possible, unless a repugnance be shown which does not equally apply to the soul of a brute; therefore such a soul should be held in fact to inform a natural minimum whose particles cannot be informed separately.

24. *To 4°, I distinguish the antecedent:* it informs in an indivisible mode, that is, in a mode excluding division into parts which remain, *I grant*; in this sense even the soul of a plant or the form of a stone informs a natural minimum in an indivisible mode, and indeed so that the whole perishes through the loss of any particle, which does not happen to the lion's soul. In an indivisible mode, that is, in a mode excluding distinction among united parts, *I deny the antecedent.* In its *proof* it is falsely said that there is no other reason proving that the rational soul informs indivisibly, or without distinction of parts; for this was shown by other reasons, disp. II, c. 1. The Thomists themselves also prove it from the spirituality of the rational soul.

But that the lion's soul does not indifferently regard the whole and the parts, namely in such a way that it could equally be preserved naturally in each divided part of the body as in the integral body, proves only that it consists of parts connected with and dependent upon one another, which therefore perish when continuative union ceases; as happens in the examples adduced in n. 20. From these it is also evident that it can happen that a part of the soul corresponds to a part of the subject and yet depends upon union with the remaining parts more than a part of the subject does. Certainly, in a divided leaf of a tree a part of the soul does not remain long, although a part of the matter can remain forever divided from the others.

25. *To 5°*: St. Thomas in II *De anima*, lect. 2, litt. b, generally supposes that the sensitive soul consists of parts when, according to the Philosopher, he says: "As one part of the sensitive soul stands to one part of the sensitive body, so the whole sense stands to the whole sensitive body." Moreover, in the text objected against us from *Summa Theologiae* I he does not speak of perfect animals alone, but of them "especially," by which he sufficiently indicates that he is speaking also of imperfect animals. Thus if someone said, "The cognitive soul is in brutes, and especially in elephants," he would not be speaking of elephants alone. The same is shown by St. Thomas's reason, namely that the soul "requires diversity in the parts" of the body; for a lizard's soul undoubtedly requires this diversity. Of it also it is true that "it does not stand in the same relation to the whole and to the parts," because it can neither first be produced in a divided tail nor be preserved there as long as it would be preserved in the whole body, since there it is in a manner violent and hastens toward death. Since, therefore, St. Thomas does not posit the lizard's soul as indivisible in the sense of the question, as the Thomists admit, they too must admit that the Holy Doctor spoke in another sense.

26. St. Thomas therefore denies division of the soul of a brute when "division" is taken for the mutual separation of parts remaining separately in a connatural state, which is properly called quantitative division, such as whiteness undergoes, and he uses its example there, in an extended subject, in any part of which it is so preserved that it desires no greater integrity. Thus we commonly call a thing indivisible when, if its parts are divided, they either immediately perish or become useless, for example a painting, a garment, a shoe. In this sense also the organization of a brute is called indivisible, or consisting in something indivisible. He also calls the soul of a brute a simple form with a simplicity opposed to composition from mutually separable parts; and he says that it is whole in every part of the body, not entitatively but connectively, insofar as a part in the tail, for example, is so

connected with the whole soul, or with the other parts of the soul, that without them it cannot exist, at least in the connatural state. St. Augustine is to be interpreted in nearly the same way, *De quantitate animae*, c. 31, where he seems to favor not a little the opinion of those who say that every material soul, even in worms, is indivisible; certainly he does not favor the opinion of the Thomists.

27. *Objection 2,* from other authors: wherever a horse is pricked, it gives signs of pain and its whole body is moved; and when by its eyes it perceives a harmful object, it immediately determines its feet to flee. Therefore the same indivisible soul resides throughout the equine body and in every part of it. *Confirmation 1:* if a horse touches water with one foot and fire with the other, it distinguishes the harmful object from the harmless and immediately withdraws one foot while allowing the other to remain. But this discrimination cannot occur unless both objects are perceived by one and the same soul; therefore the same soul is in both feet. *Confirmation 2:* if the equine soul consists of parts, its cognitive and appetitive part will likewise consist of parts; otherwise that soul will be indivisible insofar as it is capable of knowing and appetizing. It will therefore consist of many cognitive and appetitive principles. But this seems repugnant: both because one knower cannot be constituted from many knowers, as is evident in human souls; because one part of the soul could reject the same object which another appetizes; and because either all the parts know a divisible object through the same indivisible act, or through as many acts as there are parts. If the first is said, a simplicity is absurdly granted to the act which is denied to the principle. If the second, since the individual parts of the soul know the whole object, for example bread offered to a horse or dog, it follows that all those acts are total and consequently cannot coalesce into one.

28. *Confirmation 3:* in brutes also the intense operation of one part impedes or retards the operation of another; therefore the principle of operation is the same in both parts. 4º The cognitive power resides in the head, the appetitive in the heart; therefore, if the horse's soul is not the same in the heart and head, the soul of the heart will appetize an object not known by itself, which is absurd. Likewise it appears incongruous that the soul in the brain, if it is not the very same in the eyes, should imagine the object which the eyes see, that is, an object not seen by itself but by another part separated in place. 5º An animal exposes less noble parts to danger in order to protect the nobler, something especially noted in the serpent. But this would not occur in the same way if the parts of the soul were distinct; for each part ought to be more solicitous for itself than for the others. 6º Animals which grow excessively operate more feebly; this is a sign that the

soul itself does not grow through the addition of new parts, for otherwise the animal would become weaker through the addition of operative power. All these arguments apply equally to imperfect animals, as is evident; therefore they do not help the Thomists or other followers of their opinion.

29. *To the objection I answer*: the parts of the soul of a brute have among themselves a certain communication, sympathy, or subordination for the good of the whole, which they naturally require to constitute together. Hence, as soon as an external sense, for example sight or touch, perceives some object, it very swiftly transmits the species of that object through the sensory nerves distributed throughout the whole body to the internal sense situated in the brain. The internal sense, or imagination, discerning the character of the object, immediately moves the appetite to turn away from a harmful object and pursue a harmless one. The appetite then moves or determines the other parts and powers of the body, both by an impulse of the spirits, which it effects through an impulsive power identified with it or intimately conjoined to it, and by natural sympathy or subordination, consisting in this: that the remaining powers naturally demand divine concurrence for their acts on the supposition of an act of the appetitive part, which act is as an imperative and a prior condition with respect to the others. This doctrine also applies in man if the powers are distinguished from the soul. From it one easily understands why all the horse's parts are moved when one is pricked: namely because the imagination immediately cognizes the pain of the injured part, and this immediately excites the appetite to withdraw that part from the cause of the pain, by which appetite all the parts are determined to assist the withdrawal by their motion. In the same way the feet are determined to flight when sight perceives an enemy.

30. *To Confirmation 1:* the discrimination between two objects perceived by distinct parts is made by the imaginative part alone, or by one and the same internal sense, to which the species of both objects immediately arrive, although they begin from distinct parts of the body and soul. *To 2º*: the cognitive and appetitive part of the equine soul does indeed consist of parts and consequently is constituted from several knowers and appetizers, but partial ones, or ones by their nature coordinated to constitute one. This is not successfully attacked by the example of rational souls, since these are of themselves total principles of cognition and are not mutually unitable. Nor does it follow that cognitive or appetitive particles of the same soul can disagree among themselves in knowing or appetizing. For they all uniformly receive those dispositions by which they are determined to operate: the species of the external senses uniformly affect the parts of the imagination, and since these parts are necessary powers, they all immediately know in the

same way and at the same time and are moved by a uniform and efficacious motion to appetize the same thing in the same way. Hence the disparity from cognitive principles existing in distinct *supposita* is evident, for these can operate differently because of diverse determining factors. The disparity from several free principles is also evident, for by reason of freedom they can will contrary things and therefore cannot coalesce into one *suppositum*.

31. What is added concerning cognition of a divisible object has little force. For the cognition itself consists of as many parts as its principle does; and although each of those parts represents the whole object and consequently can be called a total cognition by objective and essential totality, insofar as in each the essence of cognition of such an object is preserved, nevertheless they are not total by subjective and integral totality, since they can be continuatively united to constitute one extended cognition commensurate with the whole subject, just as one extended heat is constituted from several parts in each of which the essence of heat is preserved. And although from this it follows that material cognition is indivisible in representing, insofar as by the same representation it is borne toward the whole object and toward any part of it, this is not absurd provided that the cognition is divisible in being; for in this way it sufficiently imitates its principle. Moreover, if it is denied that the whole object is known by each part of the imagination, what follows? It follows, you say, that each part of the imagination knows only individual parts of the object and that the whole object is not known; just as, if two intellects each knew one unit, the binary would not be known. *I distinguish:* it follows that the whole is not known formally, namely in such a way that it is compared with the part as including to included, *I grant*; that the whole is not known materially, namely in such a way that according to all its parts it is known through continuatively united parts of cognition, *I deny.* In this material sense we truly say that the whole object is represented in a mirror or statue. The same is to be said of acts of appetizing, seeing, etc.

32. *To 3°*: the antecedent is uncertain; but if it is true, it will be because the part operating intensely draws to itself a great quantity of vital or animal spirits, of which the other parts are meanwhile deprived; or also because the imagination, too intent upon the operating part, cannot simultaneously direct another or move it through appetite. By this argument above, disp. I, we rejected a plurality of souls in man, but there it was sufficiently effective; because if the rational soul is not identified with the sensitive, there is no reason why it should impede the latter's operation, since it does not itself by reason of itself require spirits for operating, nor does the sensitive soul of itself depend in operating upon the direction of the intellect.

33. *To 4º, I deny the antecedent,* with the common opinion of more recent authors, as regards the seat of appetite, that is, of the adequate appetitive power, as though it resided nowhere except in the heart. For now not only the imagination but also appetite is commonly located in the brain, although the latter is said to pertain to the heart because through sympathy or an impulse of spirits it causes many sensible impressions there, namely when the heart burns in anger, palpitates in fear, is constricted in sorrow, and dilates in joy. It must therefore be denied that in a brute the appetitive part of the soul is really distinguished from the cognitive part, and consequently that it appetizes an object not known by itself, although in producing acts of knowing and appetizing it is assisted by distinct accidental powers inadequately active, concerning which in the following disputation. But that the part existing in the brain imagines an object not seen by itself but by the ocular part contains nothing absurd, provided that each part constitutes the integrity of one soul; because the species of the object is continuously propagated through the nerves from the eyes to the brain, where it is retained even after vision ceases. The case is different with distinct *supposita*, for a species cannot be transmitted from the eyes of one to the brain of another.

34. *To 5º,* there is an opposing instance in the tree, which protects its fruit from the injury of the weather by its leaves and clothes its wood with bark. Likewise in water, which, according to the common opinion of the Peripatetics, often rises upward to avoid a vacuum, forgetting its own center for the good of the universe. Moreover, that a less noble part ought to be more solicitous for itself than for others proves only that it does not of its own accord expose itself to danger for the sake of a nobler part. It is nevertheless exposed through the impulse or command of the appetitive part, just as in man the heaviness of the hand and arm is raised at the command of the soul against its own innate inclination.

35. *To 6º*: that power grows weak in a larger bulk is indeed commonly asserted, even in man, but taken in itself it can easily be denied. For whatever histories or fables speak of giants at the same time proclaim them mighty with enormous strength. Nor is an elephant weaker than a hare, nor a whale than a little fish. Indeed, generally among brutes within the same species, the more they grow, the stronger they are. And certainly, if the usual reason proves anything, namely that the soul concentrates its powers in a small body and that united power is stronger, pygmies will be the strongest of all men; a man also will be weaker than a boy, and an adult lion weaker than itself as a cub. Some tall men are indeed weak, but how often do short men occur who are weaker? Therefore that weakness is accidental and arises

not from height but either from disease or an ignoble temperament. Thus it commonly happens that the same man, without change of bulk but with a change of accidental disposition, is at one time weak and at another vigorous. Old age also, although it diminishes bulk by wrinkling, does not thereby increase the strength of mature age. The same is to be thought of brutes if anything similar sometimes happens in them.

36. But even if it is admitted that brutes which grow excessively are frequently weaker, the accession of new parts of the soul is not thereby refuted; for the weakness arises from scarcity of vital spirits, which the parts of the body need for operating. These spirits arrive more slowly in a very large body and are generated in smaller quantity because almost all the matter of food passes into the substance of the thing nourished in order to acquire bulk or preserve the bulk acquired. Finally, there is a manifest opposing instance in plants: if they grow excessively, they have less power of bearing fruit, and therefore, especially vines, they are pruned so that they may bear more fruit. By this same example is resolved what some object, namely that from our opinion it follows that brutes have no definite limit of magnitude. See disp. I *De generatione*, n. 55.

37. *Objection 3,* from P. Quirós: the souls of brutes of the same species are distinguished in *suppositum* essentially, that is, they require distinct *supposita* to be constituted essentially, not merely accidentally by reason of the division of matter, in the way several fires are accidentally distinct *supposita*, since of themselves they can coalesce into one if continuity of matter is given. That such a distinction exists between the souls of two lions seems evident both from common apprehension and because one soul cannot desire evil for its own *suppositum*, although it can desire it for another. But if souls were divisible, they would not essentially pertain to distinct *supposita*, because from two little lions one large lion could be made, and from one large lion two little lions, no differently than from many sparks one great blaze and from one great fire many small fires. And at least the same parts of soul which are acquired through nutrition by lion A could be acquired by lion B. This *objection* is manifestly pressed in the case of plants. If with Quirós you deny that they are essentially distinguished in *suppositum*, you will not easily refute one who likewise denies this in brutes. For we also apprehend trees as essentially distinct in *suppositum*, and the soul of one provides for its own *suppositum* even to the detriment of another, as when one tree draws nourishment from the earth for itself, not without detriment to another planted nearby.

38. Next, *I answer 1°,* that souls of brutes of the same species, although divisible, are absolutely essentially distinguished in *suppositum*, because one

cannot naturally be united to another, nor a part of one to a part of another, so as to constitute one *suppositum*. Rather, the parts of each possess a mutual coordination in themselves by which they can constitute that *suppositum*, not another, since in reality they differ from the parts of distinct fires, for which being continuous or discontinuous is accidental. This is proved by the same reasons by which it is proved that such souls are essentially more distinguished in *suppositum* than igneous forms. Hence it must be denied that from two little lions one lion can be made, etc., and that parts acquired by lion A are of themselves indifferent, even in the state of possibility, to being acquired by lion B. Nor does it matter that the parts of each *suppositum* are of the same species; for by individual difference the parts of one can possess an order among themselves rather than toward others, and can be more similar to one another than to the parts of another. Thus the actions of Peter, from their individual relation to that individual, are more similar to one another than to the actions of Paul, although all are of the same species.

39. *I answer 2º,* that souls of brutes of the same species are essentially distinguished in *suppositum*, not absolutely in every respect, but on the supposition that they are first generated in discontinuous matters. Once this supposition is made, they can never naturally coalesce into one, nor can each be divided into several *supposita*. For if a large lion is divided, it will immediately die; and one little lion cannot be united to another by juxtaposition, as is evident, nor by intussusception or nutrition, since it must first be killed before it is food for the other. Hence two lions are more distinguished in *suppositum* than two fires; for the latter after their first production can be continuatively united, and each can naturally be divided into several. They are distinguished more also than two plants, if it is true that a branch of one with its part of the soul is by grafting continued with another, even one of a different species; for nothing similar can happen in brutes. I nevertheless grant that the parts acquired through nutrition by lion A could, before the supposition of this nutrition, have been acquired through nutrition by lion B. There is no difficulty in this, any more than in the fact that the same parts of matter which one acquires through nutrition could have been acquired by another, although both are distinguished in *suppositum*, not only as regards form but also as regards matter. Hence I also grant that the parts of the soul by which lion A is now increased could have served for the first generation of lion B; that this is not absurd is evident by parity with the parts of matter and by the example of a plant.

40. *Objection 4:* if the soul of a brute were divisible, the smallest particle or point of the soul corresponding to a point of matter would be a true soul, just as a point of matter is matter, at least in Zeno's composition of the

continuum. But on the other hand it would not be a true soul, because it would not be the act of an organic body, since it could actuate only a point of matter. There is added that, if such a particle truly is a soul, since it is an unextended point, there will already be an indivisible material soul. This *objection* is first manifestly pressed in the soul of a plant, and next is easily resolved if it is said that a point of soul is not a soul simply, but only with the addition "as that by which," or "constitutively," insofar as it cannot naturally exist except by constituting a soul simply so called through union of itself with other parts of the soul. The reason is that the concept of a soul simply so called includes a natural aptitude to actuate an organic body, which necessarily imports divisible matter; but this aptitude is not preserved in a point of soul by which a single point of matter is actuated. More on this in the following Question. The case is different with matter simply so called, whose concept contains nothing that cannot be preserved in a point according to Zeno. What is added in the objection is frivolous; because even if a point of soul were called a soul simply, a material soul would not thereby be indivisible any more or otherwise than prime matter, which is all we maintain here.

CHAPTER III.
Whether the Parts of a Divisible Soul Are Homogeneous or Heterogeneous?

41. Given the divisibility of the soul of a brute, no one denies that there are in it several homogeneous, or altogether similar, parts, namely those which completely agree in organization and operation. Thus the parts of the right eye are similar to the parts of the left; the same is true of the parts of each ear or each foreleg, or even of purely fleshy parts compared with one another. The question concerns only parts which underlie diverse organization and elicit very diverse operations, for example the ocular and auricular parts, or those situated in the brain and in the foot compared with one another. If these identify with themselves the same power and the same essential predicates, so that, for example, the auricular part is of itself visual and the pedal part imaginative, and it is accidental to them that they lack organs apt for seeing or imagining and that in the first animation they are produced in the ear or foot rather than in the eye or brain; if, I say, the parts are of this kind, they will be homogeneous. But if each has of itself no other power than that which corresponds to the organization under which it lies and essentially requires to be situated in the foot rather than in the brain, etc., they will be heterogeneous and substantially dissimilar, since some

predicate belongs to the capital part which the pedal part lacks, namely an intrinsic and substantial capacity for imagining.

42. In this sense the homogeneity of the parts is commonly asserted by the Thomists, also by Pontius and Mastrius among the Scotists, and among our authors by Arriaga, Oviedo, Quirós, Peinado, Ulloa, and others. But heterogeneity is maintained by Cardinal de Lugo, Rubio, Hurtado, Téllez, Compton, Alphonsus, Lynce, and others among our authors, following the Excellent Doctor, d. 15, *Metaphysica*, f. 10, n. 40, and s. 1, *De anima*, c. 2, n. 19, where he cites other earlier authors. Each opinion is very probable; the second, however, appears more probable. It is commonly *proved* thus. Parts of the soul of a brute which are not destined for cognition, namely through imagination or the cognition proper to the brain, are not intrinsically cognitive; therefore they differ intrinsically from the cognitive part of the soul, with which consequently they are not homogeneous; and since the same reasoning applies to the other predicates, all parts destined for diverse functions are heterogeneous. *The antecedent is proved:* a part, for example, destined for the foot, to which the function of cognition is wholly foreign, if it were intrinsically cognitive no less than a part destined for the brain, would exist in the foot violently and against its own inclination. But no one says this, nor can it be said, since it belongs essentially to the nature of a divisible soul that some part of it be situated in the foot, perpetually destitute of dispositions for cognition. Therefore, etc.

43. *The major is proved:* a naturally active substance, if it is perpetually prevented from the noblest operation which it contains as a principal cause, suffers violence. But a part of the soul destined for the foot is perpetually prevented from the operation of knowing, which among all operations proper to the sensitive soul is noblest and specific, or indicative of specific perfection. Therefore, if it intrinsically contains such an operation as its natural and principal cause, as the form in the brain does, it exists violently in the foot. The other points are evident, and the *major* seems sufficiently clear. First, because natural activity is implanted in things for the sake of operation, at least specific and principal operation. Therefore, lest it lack its proper end and be in vain, it naturally demands to be reduced to act; if perpetually excluded from that act, it is violent. Second, because in relation to that activity the operation, especially an immanent operation such as cognition, is good and very useful, or highly fitting; it is also naturally possible, since it is contained within natural activity. But a capacity for a fitting and naturally possible good is necessarily an innate appetite for that good, and consequently cannot without violence be perpetually deprived of it. Certainly, if the part of the soul extended into the feet or bones were

capable of discernment, it would obey unwillingly and would bear so hard a lot with resentment; therefore even now it suffers violence against its innate inclination, which is rightly discerned by comparison with an elicited appetite, if such existed.

44. *Confirmation 1:* if the whole equine soul were perpetually denied the proximate power of knowing, it would exist violently; therefore equally a part of the equine soul to which such proximate power is perpetually denied must be violent, since according to the opponents every part of the soul is of itself no less naturally cognitive than the whole soul. *Confirmation 2:* diversity of properties and operations in really distinct principles, when it is evident that it is not accidental and from an extrinsic cause, provides a physically certain argument for substantial diversity of the principles. Otherwise, why do we certainly assert that fire differs substantially from water and a horse from a lion? But in the parts of a brute's soul, which are now supposed really distinct, a great diversity of properties and operations is observed, and it is utterly certain that this diversity is required essentially and intrinsically by the soul of a brute; therefore, etc. *Confirmation 3:* if the powers are distinguished from the soul and from one another, no one denies that they are unequal and heterogeneous, and that the visual differs intrinsically from the auditory, the imaginative from the ambulatory, and so with the others, although all belong to the same *suppositum*. Nor would it be said except strangely that the ambulatory power destined for the feet has of itself the power of imagining or seeing. But this is decided for no other reason than from the diverse operations and organic dispositions to which each power is perpetually destined.

45. To this whole argument, which is certainly weighty and quite pressing, the opponents answer that parts of the soul of a brute destitute of organs for knowing are not violent, because individual parts do not demand such organs determinately for themselves, but either for themselves or for other parts of the same *suppositum*. For since organization for knowing is not due or useful to the equine composite in every part of the body, but only in some, so that there may be room for other organs and operations likewise connatural to it, the parts of the equine soul, whose exigency must be conformed to that of the whole, therefore do not appetize such organization as something to be conferred upon all simultaneously, but as something to be conferred upon some vague or indeterminate one, namely whichever among several equally suitable parts the Author of nature has chosen and willed to place in the brain. Thus when among many equally worthy citizens of the same commonwealth one is chosen as magistrate, no injury is inflicted upon the others, although injury would be inflicted upon all if none were

chosen; for each has a right not that the office be conferred determinately upon himself, but that it be conferred either upon himself or upon another equally worthy citizen. Thus the good of the commonwealth requires, to which the rights of private persons must conform.

46. Hence they explain the disparity from forms constituting diverse *supposita*. For the soul of a horse is asserted to differ substantially from that of a lion, not precisely because it never roars and does not underlie organs suitable for roaring, but because it is not a part of a roaring *suppositum* and consequently demands a proximate power of roaring neither for itself nor for others. Indeed, from the operations of a lion and horse not only is the diversity of the two souls inferred but also their lack of connection and incapacity to constitute one *suppositum*. Yet that lack of connection is not inferred from the diverse operations of parts of the same *suppositum*. Therefore no sound parity is drawn from diverse *supposita* to parts of the same one. Moreover, they attempt to weaken our argument by examples. For the rational soul is whole in the foot, in which it never reasons nor imagines. The soul of a male is of itself capable of informing a female body which it will never inform. A white horse and a black horse, since they are of the same species, differ in color, which they retain perpetually. In the same brute, the soul of the right eye could have underlain the organization of the left, and the soul of flesh or bone which is in the breast could have been in the leg; yet that potency will never be reduced to act. Celestial matter, according to a probable opinion, is capable of a sublunary form which it will never receive. Many objects possess a motive power toward vision of themselves, although they will never be seen. Therefore likewise in our case there can be natural activity perpetually impeded.

47. But against this doctrine the given proof *is strengthened 1º*: because it seems altogether absurd that nature should grant to one hundred or one thousand parts of the soul a power of knowing while essentially and directly intending that this power be exercised by only one of them. First, because this is vainly to lavish an activity most noble in its genus. Second, because in moral matters a prince would act imprudently if he gave weapons to one hundred soldiers while directly intending that only one fight and knowing with certainty that it would be harmful to the commonwealth if any of the others besides that one used their weapons. Certainly the opponents cannot deny that it happens essentially and by nature's institution that the greater number of parts of the soul, for example ninety-nine out of one hundred, are outside the brain and consequently never know, although God alone determines which one of those hundred is to be placed in the brain. Therefore nature essentially ordains the greater number of parts always to

lack exercise of their principal substantial power and for that power, precisely as such, to remain perpetually idle in most parts or nearly all. Therefore, since there is otherwise the general principle and rule that "nature ordains an active power to act," nature will essentially regard contrary ends and will be contrary to itself.

48. *It is strengthened 2°*: because for each part considered in itself it is good to exercise so excellent a power; for from the terms themselves it is good for a cognitive principle to know, just as for a vital principle to live and for a nutritive principle to cause nutrition. Therefore, if on the other hand it is for the good of the whole that nearly all the parts perpetually lack the exercise of that power, the goods of the whole and of nearly all its parts will, by nature's institution, always be contrary and incompossible. But this manifests both disorder and a certain impotence or ignorance of nature, which knows no way of instituting the advantages of the composite except with perpetual disadvantage to most of its parts. Indeed, although it sometimes happens that a particular part serves the advantage of the whole against its own peculiar inclination, as when water rises for the good of the universe to avoid a vacuum, if this be true, nevertheless there is no whole whose exigency perpetually opposes the peculiar exigency of its parts, at least in relation to their principal operations. And impotence would be argued in the Author of nature if He knew no way of constituting the universe and providing for its goods as a whole except by perpetually denying most of its parts their principal functions and specific operations, for example illumination to the sun, heating to fire, reasoning to man, etc. These arguments have especial force against several of the opponents who concede as possible a soul constituted from heterogeneous parts.

49. *It is strengthened 3°*: because if the doctrine of our opponents stands, someone could defend that all the substantial forms of the whole universe are of the same species and endowed with the same substantial power, for example to illuminate after the manner of the sun or to roar after the manner of a lion, while nevertheless individual forms do not demand for themselves determinately the proximate power of illuminating or roaring, but indeterminately for themselves or another, because it is useful to the universe that only one perform the function of the sun and that not all elicit the operation of a lion. Here the example of the magistrate will be even more apposite, and if it proves anything it proves that distinct *supposita* can indeterminately demand for themselves or for others a certain genus of operations. Certainly no less union and subordination is found among the parts of the universe than among the citizens of one commonwealth. Indeed, it makes no difference that this union is less than that among the parts of

one brute. First, because someone will say that this distinction is material as regards the present matter, since the universe truly is a whole constituted from parts coordinated among themselves, which parts truly demand the conservation and advantages of the whole. Second, because sublunary bodies seem no less connected with celestial bodies and to require their operation than the foot requires the operation of the head. There is added that at least from the reported doctrine it could be defended that the powers of the soul, although distinct from its substance, are all homogeneous and of the same power, and that each indeterminately demands an organ of seeing, for example either for itself or for others, because all pertain to the same *suppositum*, for which it is not advantageous that all be destined for seeing.

50. Now that seeming instance in n. 46 concerning the lack of connection between the souls of the lion and horse is easily repelled, because lack of connection, or incapacity to constitute one, is not inferred from diversity of operations. For two rational souls or two entirely complete leonine souls are similar in operating and yet incapable of constituting one; conversely, matter and soul are roots of diverse properties and yet coalesce into one. Therefore a lack of connection or incapacity of this kind is chiefly inferred from experience of perpetual separation while the connatural state remains, when no reason is otherwise available for the opposite. But the entitative diversity of distinct principles is most properly inferred from diversity of properties and operations; otherwise the whole universe could be freely imagined as substantially homogeneous. The crowd of examples objected does little harm. That of citizens equally suitable for the office of magistrate is very disparate, because that suitability is neither the principal and specific aptitude of each, nor are the others perpetually excluded from the office by the election of one. But if, while intrinsic merit remained, they were perpetually excluded, they would indeed suffer injury; much more if under the pretext of the common good all but one were forced perpetually to conduct themselves as irrational beings or as stocks. A commonwealth requiring such a thing would be altogether disordered. Hence the example is turned against them.

51. The rational soul which is whole in the foot is simultaneously whole also in the head, where it reasons and imagines. But for it to be called absolutely equipped for its proper operation, it is enough that it be equipped somewhere; it is not required to be equipped in every place in which the soul exists, just as it is not required in every time in which it exists, for example in infancy or sleep. Yet if the rational soul existed nowhere except in the foot or in an organ altogether unfit for imagining, it would be absolutely violent. But the soul of the foot in a horse is in this condition; hence this example

too was turned against them. The soul of a male equivalently exercises the potency of informing a female body insofar as it informs a male body equally suitable for the specific operation of reasoning. Nor in either body does a human or brute soul entirely lack the proximate power of generating, although there is disparity in the mode. Moreover, since it is otherwise evident, at least in human beings, that the souls of male and female are of the same species, although in brutes a specific diversity in a qualified sense, namely according to certain parts, could be admitted, some diversity of organs is rightly said to be accidental in relation to the soul in the individual and is rightly attributed to extrinsic causes. But if specific identity were in dispute, as it is among the parts of a brute's soul, heterogeneity of the souls could not unjustly be inferred from that diversity. In horses white or black color has nothing to do with specific operation; and although it is perpetually retained, it is evident that its determination is from an extrinsic cause, as happens in men.

52. The organization of the right eye is of the same nature as that of the left and is suitable for acts specifically similar. Hence the soul existing in the right eye fully enjoys an organ and operation of the visual line just as if it existed in the left. That no power will ever possess all the individual properties and operations which it contains is not remarkable, since these are syncategorematically infinite. Violence is not correctly argued from this; but it is correctly argued from the fact that some power is rendered perpetually unfit for a definite species or line of acts, at least acts very excellent and indicative of its specific perfection. Thus a horse suffers violence if it can never neigh, and a man if he can never reason; but not if a horse or man never elicits all the individual neighings or acts of reasoning endlessly possible. In these an indeterminate exigency has place, since the exigency of the power is equally satisfied by this or that act of the same species. But who would believe that it is equally satisfied by an act of a different and much inferior line? Let the same answer be given regarding the soul of flesh or bone, which therefore does not require rather to be in the breast than in the leg, because in either place it obtains qualities and acts of the same nature and consequently demands neither place determinately, but one or the other.

53. Similarly, celestial matter, even if held to be of the same species as sublunary matter, suffers no violence from perpetual privation of a sublunary form because the appetite of matter, at least its efficacious appetite, is directed toward form only under the generic aspect of substantial complement, as is commonly taught in the Physics. Hence in relation to such appetite a celestial and a sublunary form are equal and as it

were of the same nature. Matter therefore indeterminately appetizes either and is content with the reception of either, since in it it formally exercises the same potency by which it regards all forms. But nothing similar occurs in our case, unless one absurdly says that all operations of a horse, principal and lowest alike, are demanded by the soul only under the generic aspect of an equine operation. Finally, a power of moving toward vision or producing a visual species, if it is anywhere where it can never naturally be exercised, will suffer some violence. It could also be denied that there is anywhere a color to which an eye cannot approach at least by the natural industry of an angel. Whatever the case, this example and most of the others objected against us must also be resolved by the opponents themselves, since they prove that even in whole *supposita* the absence of a substantial power cannot properly be inferred from the fact that they perpetually lack certain properties and operations without violence. Hence there would be no reason to deny a horse a substantial capacity for roaring or reasoning.

54. Another example also objected here by some suffers the same exception, namely that of visual species which are diffused from the sun all the way to us. Although these have of themselves the power of producing vision, they are nevertheless for the most part received in a subject unfit for vision, namely in the region of air and ether, and indeed by nature's institution, since nature essentially intends the sun's distance from the earth. Indeed, from the very nature of vision every object must be somewhat distant and diffuse a species through a medium; for if it is contiguous with the eyes it will not be seen. This example, I say, proves too much, namely that nature can grant some power to distinct *supposita*, such as air and man, essentially intending that this power be exercised in only one of them. Hence fire and earth could have the power of illuminating although only fire illuminates. It also proves that accidental powers can be received without violence in a subject unfit for operation, for example visual power in the foot. A direct answer may be given: 1º the species received in the medium are not of the same nature as those received in the eye; 2º both concur toward vision after the manner of one agent; 3º species, as purely instrumental powers toward vision, do not naturally require to operate except insofar as this is of interest to the principal power, namely the visual potency. But it is of interest to this potency that many species exist in the medium without operation.

55. Let this suffice regarding the common proof of our opinion. Another proof, not ineffective, may be added. If all the parts of the equine soul are homogeneous, all the intrinsic predicates found in the integral soul ought to be found in each. Such is the nature of every homogeneous whole, as is

evident in the parts of the form of fire or water. But it seems manifest that this does not happen. For the integral soul of a horse essentially and intrinsically demands to inform an organic body simultaneously suited to imagining and appetizing, to using the five external senses, to walking, etc.; for an integral horse absolutely demands this, certainly by reason of the soul. Yet such an intrinsic exigency is not found in every part of that soul, for example in the pedal part; for according to the opponents this does not essentially demand to possess all those organs simultaneously, but some one of them indeterminately, namely either for imagining, seeing, walking, etc. Nor does it matter that it demands all the organs simultaneously as something to be distributed among itself and other parts of the same soul. For by that very fact it does not possess the intrinsic exigency proper to the integral soul, which determinately demands that all the organs simultaneously be conferred upon itself as contradistinguished from every other soul and part of a soul. Moreover, intrinsic to the whole soul is not only simultaneity of power for all the operations of a horse, but also the power of simultaneity; but to the pedal part, although simultaneity of power or substantial aptitude belongs to it, the power of simultaneity does not, since all the organs cannot simultaneously be attributed to it.

56. *It may be said:* the pedal part does not demand all the organs simultaneously on the supposition that it is a part, or that it is united to other parts of the soul. Nevertheless, it can of itself exist separately from the other parts and thus be an integral or total soul, destined to inform a little equine body furnished with all the organs, which does not exceed the matter of the foot of a larger horse. But *against this* 1^{o}: a part of an entirely homogeneous form, although united to other parts, demands in its own part of matter all the dispositions simultaneously for the same species of operations which the total form demands in the whole matter. This is evident in any part of an igneous form, which demands that its part of matter be simultaneously disposed for burning, heating, drying, and shining.

57. *Against this* 2^{o}: let us speak of a little equine soul informing a natural minimum. No part of it is naturally apt to inform a little body furnished simultaneously with all the organs, since no body smaller than the minimum is possible. Therefore no part has of itself the intrinsic natural aptitude which the whole little soul has. Nor may it be said that this is accidental from defect of bulk; for from smallness of bulk no homogeneous form ceases to possess whatever belongs to the essential concept by which the form itself is defined in itself, as is again evident in the form of fire. But the essential and definitive concept of an equine soul in itself includes an aptitude, certainly natural, to inform a body simply equine, to which

undoubtedly belong simultaneously all the organs necessary for the operations of a horse. Therefore, etc. *Against this 3º:* at least if the continuum is composed of indivisibles, as many of the opponents maintain, the nature of the act of an organic body, which is the metaphysical essence of the soul, cannot be preserved in a point of the soul; yet it would be preserved if homogeneity were granted, just as the essence of fire is preserved in a point.

CHAPTER IV.

Answers to Contrary Arguments.

58. *Objection 1:* diverse entities are not to be multiplied without necessity; but there is no necessity here; therefore. *The minor is proved:* it is not repugnant that a wholly homogeneous divisible soul should require parts of the body diversely organized and suitable for diverse operations. For if such a body can be required by an indivisible soul, such as the human soul, why not by a homogeneous divisible soul? The absence of distinction certainly seems more opposed to this than the absence of diversity among parts of the soul. *Confirmation 1:* if the soul of a brute were indivisible, without any heterogeneity of itself it would require a body variously organized. Therefore variety of organization does not argue heterogeneity of the soul. *Confirmation 2:* divisibility is not posited in the soul of a brute because of diversity of organs but because of the necessity of nutrition; but nutrition is compatible with homogeneity of parts, as is evident in the nutrition of a purely fleshy soul; therefore. *Confirmation 3:* the parts of matter, although diversely organized, are substantially homogeneous; the soul of flesh is of the same nature in every part of a brute′s body, although organization is not similar everywhere; among men also there is no small diversity of organization without diversity of souls.

59. First, the *objection* is turned against them thus: perfections and activities are not to be multiplied without necessity; but there is no necessity for attributing to all parts of a brute′s soul the perfection and activity of cognition; therefore, etc. Next, *I deny the minor*, whose falsity is evident from the preceding chapter. *To the proof I deny* the assumption, because the parts of that soul would simultaneously be and not be ordained to cognition, would simultaneously demand and not demand to imagine and see, would simultaneously be and not be violent, and the full definition and essential concept of soul would simultaneously belong and not belong to all of them. Nor does the example of an indivisible soul help; for such a soul, since it is whole in each and every part of the body, simultaneously enjoys the entire variety of organs of which it is capable. But every part of a divisible soul,

although it would have to demand all the organs simultaneously, can obtain only one. Hence the absence of diversity in the parts of a soul is more opposed to the matter than the absence of distinction of parts in a soul; because the former absence implies that every part of the soul is essentially ordained to all the organs of the body simultaneously, although it must be limited to one; whereas the latter implies that the whole soul is in every part of the body, and consequently enjoys simultaneously all the organs due to it.

60. *To Confirmation 1, I distinguish the consequence:* it does not argue heterogeneity of an indivisible soul, *I grant*, unless perhaps there is question of virtual or eminent heterogeneity; of a divisible soul, *I deny the consequence.* The reason for the distinction is evident from what has just been said. *To 2⁰*: although divisibility of the soul is not proved from diversity of organs, nevertheless, if it is proved or presupposed from elsewhere, from it together with diversity of organs the heterogeneity of the parts of the soul is rightly deduced; because it follows that the power of each part is naturally limited to its own organ. Thus, although from diversity of human operations a distinction of principles or souls cannot be proved, nevertheless, if such a distinction were presupposed from elsewhere, diversity of the souls would rightly be inferred from the fact that one was destined to vegetate, another to sense, another to understand.

61. *To 3⁰*: concerning the parts of matter, as also concerning the whole equine matter, it is evident that they are not organized by their own exigency and do not demand the accidents of a horse rather than those of a lion or stone. And if it is permissible to argue from this, lion and horse will have homogeneous souls just as they have homogeneous matters. The organization of flesh, if considered as contradistinguished from the organization of bone, nerve, membrane, etc., seems homogeneous in every part of the body. Yet if it is proved in some part to be essentially and permanently diverse, nothing prevents calling the form of flesh heterogeneous as regards some parts; this indeed is sufficiently very probable regarding the form of bone. That diversity of organization in human beings is accidental and from an extrinsic cause we showed abundantly in the preceding disputation. Therefore let the opponents explain why that diversity does not prove diversity of souls, just as that which is seen between lion and horse does, since each occurs among distinct *supposita*.

62. *Objection 2:* if the parts of the soul of a brute are heterogeneous, so that the part in the ear is not intrinsically visual, nor that in the eye auditory, etc., they will differ specifically, since the diversity is very notable. But things differing specifically cannot be continued, as Aristotle testifies, Physics V,

and as experience testifies in the souls of horse and lion. Therefore those parts cannot be united to constitute one soul. *Confirmation 1:* given heterogeneity, some parts in the horse will not be sensitive but purely vegetative, for example those in the bones or hoofs. Hence it follows that the horse is constituted from a certain species of plant and can be denominated insensible from an insensible part. It also follows that a soul could equally be composed of some non-vital part, just as a sentient soul is composed of a non-sensitive part. *Confirmation 2:* the parts of a horse ought to be more similar to one another than to parts of a lion, as being more closely connected among themselves. But this cannot stand if heterogeneity is granted, for the ocular part of a horse will be more similar to the ocular part of a lion than to the auricular part of the same horse.

63. *Confirmation 3:* the parts of the equine soul are integral; therefore the essence of the equine soul ought to be preserved in each, just as the essence of fire in each of its parts; but this certainly does not cohere with heterogeneity. *The point is pressed:* the soul of a horse is essentially simple and only integrally composite. But heterogeneity makes this false; for the soul of a horse is essentially imaginative, visual, auditory, etc. These predicates, if the parts are heterogeneous, are not really identified among themselves, but each consists in a really distinct part; therefore the soul of a horse is essentially composed of really distinct parts. Indeed, those parts are essential whose absence entails the absence of the essence of the whole. But if a heterogeneous ocular part is lacking, the essence of the equine soul certainly is lacking, since it will no longer remain intrinsically visual and sensitive by five senses, as its essence demands. Hence a sighted horse differs specifically from a blind one, since it differs in some essential predicate; thus a mole differs specifically from sighted little animals even if one attends precisely to the absence of sight. *The point is pressed again:* informative union differs from continuative union in that it binds dissimilar parts belonging to the essence of the composite; but the union which binds the parts of the soul is continuative.

64. *I answer:* this argument cannot be used by those opponents who acknowledge as possible a soul composed of heterogeneous parts, nor by those who admit, either actually or possibly, an intension of quality through heterogeneous degrees; nor likewise by Scotists and other adherents who posit a form of corporeity in living things constituted from heterogeneous parts, in order to preserve the substantial difference of flesh and bone. Moreover, against all of them the same argument suffers an opposing instance in the accidental organization of the equine body, whose parts, although differing greatly from one another in the eyes, ears, head, breast,

etc., nevertheless certainly seem naturally unitable, since nature destines them to constitute one total organization. There is also an opposing instance in an artificial form, for example a statue of Caesar, whose parts, namely head, breast, arms, etc., are heterogeneous in the artificial genus, and yet in that very genus are conjoined into one form of Caesar.

65. Therefore *to the objection* it must be said that parts of the soul of a brute assigned to diverse organs differ among themselves by an incomplete species, and indeed some even by an incomplete genus, that is, after the manner of co-parts or by differences coordinated with one another toward constituting by continuative union one total soul. Thus matter and form, although substances differing specifically from one another, and indeed generically, are nevertheless coordinated with one another so as to compose by informative union one total substance. But those parts do not differ by a complete species, that is, one excluding the mutual coordination of co-parts, as the souls of lion and horse differ from each other. Therefore the nature of their unibility is not the same in each case. Thus the accidental organizations of lion and horse cannot be united, but those in the neck and head of a lion can, because the latter differ by incomplete species, whereas the former by complete species. Nor does Aristotle oppose this, for he must be understood of things differing by a complete species; that things differing in some manner specifically can otherwise be continued is shown from Aristotle himself by P. Suárez, I *De anima*, c. 2, n. 20.

66. *It may be said* that this solution begs the question, because for parts of the soul to differ by incomplete species is the same as truly to differ specifically while nevertheless being capable of continuative union, which is precisely what the arguer attacks. But consider what you answer to this argument: two souls similar in species cannot be continued, as is evident in human souls or in entirely integral equine souls; therefore, if in a horse the soul of the head and the soul of the breast are similar in species, they are not continued. You will answer, I think, that the antecedent is true of complete souls, otherwise of incomplete ones; and behold the begging of the question, since for souls to be incomplete is the same as their being capable of continuation although specifically similar. Let our solution therefore, if you please, be a begging of the question, but of a principle attacked by you in no other way than by a simple contrary assertion; a principle moreover not gratuitously asserted, but confirmed by examples, experience, and reason. For since we see that the parts of a horse are continuatively united and reason otherwise persuades us that they differ specifically, we rightly infer that they do not differ by complete species, or not in such a way as to be incapable of reciprocal union. But if the name “incomplete species” is

displeasing, I distinguish the proposition "things which differ specifically cannot be continued" thus: all things which differ specifically, *I deny*; some or many, namely those which induction and experience show never to be continued, however much they are applied, *I grant.* On what ground will this be attacked?

67. But *it will be insisted:* blood, although an incomplete species, is not continued with the body of a living thing; nor can two rational souls be continued with one another, indeed not even a part of an equine soul with a part of a leonine soul, although they are incomplete species. It will be added that every part of the soul can be called a complete or total form, since it adequately completes its own matter and with it constitutes one whole, or substantial composite. But this is gratuitous caviling. Blood lacks continuity not because it differs from the body by incomplete species, but because a fluid is not continued with a solid. Nor does the incompleteness of blood signify anything other than subordination and a need to be included in the body. Two rational souls are incomplete in the genus of predicamental substance, but not in the being of soul; nor do they have among themselves the order of co-parts. Indeed, this example would prove that two homogeneous parts of a soul cannot be continued, and that matter and form cannot be united, although they are incomplete substances. Two parts, leonine and equine, although incomplete, differ from one another by complete species, or, if preferred, in order to a complete species, because each has an order to a total soul specifically diverse. What is added applies equally to homogeneous parts, which no one denies to be incomplete or partial souls; and yet each is adequate to its own matter and with it composes a substantial whole. Therefore each is a total form by the totality of complement of its own matter, but not by the totality of a continuum, capable of existing without need of continuation with others.

68. Now *to Confirmation 1* I admit the assumption but deny the consequences. The first, because it is not called the soul of a plant, since, although not formally, it is nevertheless connectively sensitive insofar as it is naturally connected with sensitive co-parts, together with which it constitutes one soul absolutely sensitive; and because, moreover, it roots accidents appropriate not to a tree but to an animal, such as the accidents of bone or hoof. Such is the purely vegetative part of the soul in a horse. There is an opposing instance also in the organization of a hoof, which, although useful only for vegetation, is not called the organization of a plant. But that part denominates the horse insensible in a qualified sense, not absolutely, because this negative denomination is of an adequately destructive nature and, said absolutely, would remove from the horse the power of sensing in

every part. Thus a horse is denominated absolutely seeing although it does not see in its hoof. The second consequence is denied because, although from the terms it is not repugnant that something vital be constituted from some non-vital part, nevertheless by the name "soul" common consent understands a form wholly and entirely vital. Therefore if any part in an animated body is rendered unfit for every vital operation, it is thereby judged to lack a soul. See the preceding disp., n. 57. But the soul of a horse can be called and be absolutely sensitive although it is not purely and entirely such, just as the whole is called proximately sensitive although according to the opponents it is not in every part proximately capable of sensing.

69. *To 2°,* the assumption is denied. For the connection or lack of connection of parts so as to constitute one and belong to the same complete species or to diverse ones does not depend upon greater or lesser similarity. The souls of lion and horse have greater similarity to one another than either has to prime matter, to which nevertheless they can be united, although they cannot be united with each other. A rational soul is not more similar to sublunary matter than to celestial matter, supposing the latter specifically diverse; yet it cannot be united to celestial matter as it can to sublunary matter. Two equine heads are more similar to each other in organic accidents than are the head and neck of one horse; yet the latter, not the former, can naturally be joined. The ocular organization of a horse itself differs less from a lion's ocular organization than from its own auricular organization; nor can it therefore cohere more with the former in the same *suppositum*. Therefore connection or lack of connection of this kind depends upon an intrinsic exigency or repugnance of the parts toward mutual natural union; and this character of the parts becomes known chiefly through experience and induction.

70. *To 3°, I distinguish the antecedent:* they are integral with an integrity necessary for the essence of the equine soul to be absolutely preserved, *I grant*; with an integrity not so necessary, *I deny the antecedent and consequence.* Every part of a composite thing, however essential, can be called integral because from it together with another or others the essence of the thing is integrated. Yet because there are many integral parts which are not essential, as happens in homogeneous wholes, the common name "integral part" is usually attributed peculiarly to those parts which do not contribute an integrity necessary for the essence of the thing to be absolutely preserved; and under that name parts of this kind are commonly distinguished from essential parts, especially when they are called "purely integral." But if a dispute is raised about the name itself, it must be

distinguished as we have distinguished it. I am speaking of dissimilarly operating parts of the soul compared with one another; for otherwise I do not deny that there are several purely integral or non-essential parts in the soul, namely those homogeneous particles by which in an adult horse each heterogeneous part is integrated. A fleshy part has several fleshy particles, an osseous part several osseous particles, and so with the others; not all these particles are necessary in order that the essence of flesh, bone, etc., be absolutely preserved.

71. Nor do the arguments objected as pressing in n. 63 press. For the soul of a horse is indeed essentially simple with a simplicity opposed to composition from act and potency, but not with a simplicity opposed to composition from continuous parts. No one can deny this once divisibility of the soul is granted, even if the whole is homogeneous; for it appears utterly certain that the definition "first act of an organic body" cannot be preserved in a point of soul limited to a point of matter, nor can the aptitude for sensing simultaneously by five senses which the equine soul essentially imports. The organic body itself, for example the human body, essentially expresses composition from continuous parts, not only as regards accidental organization but also as regards the substance of matter. For matter cannot be called a human body unless it has parts suitable for forming, at least in rudiment, the head, breast, and other members simply necessary for human life. It must nevertheless be denied that the essential predicates of the equine soul, insofar as they are attributed to the whole soul, are not really identified with one another even though they proceed from distinct parts. For the same soul with all its parts is denominated "imaginative" from part A, "visual" from part B, and so with the others, such that the individual predicates are verified of the complex of all the parts which is really one and the same. Thus man is denominated "rational" from the soul and "mortal" or "corruptible" from the body or union; and according to the Scotists the predicates "body" and "living" accrue to man from distinct forms. Yet all these predicates, insofar as attributed to the whole man, are really one and the same.

72. Moreover, that the essence of the equine soul fails when the ocular part fails is, strictly speaking, true; because the essence of a whole consisting in a definite multitude of parts necessarily fails, or is changed into another at least inadequately distinct essence, when any part is removed, just as the essence of a ternary number fails when a unit is removed, or passes into a binary. For this reason every essence is said to consist in an indivisible, like number, not because it lacks parts but because it does not admit a part being divided from it without its own destruction or alteration. Nevertheless there

are certain essences which, provided they retain their principal essential parts, according to common usage retain the same name, yet in such a way that they are simultaneously called "mutilated" or "curtailed," by which addition it is signified that they are now other inadequate essences. Thus it occurs in the essence of a statue, house, temple, and in the essence of the organization or body of a man or horse. For after feet or eyes have been taken away it is still called an equine body, but a mutilated one. And the same occurs in the essence of any divisible soul. That the same does not occur in the essence of number or in others depends upon usage of speech. Hence a blind horse differs indeed in essence from a sighted one, but only by a partial or inadequate difference, just as the organic bodies of the two differ from each other in no other way. It differs even less by reason of blindness than does a mole, because in the remaining parts of the soul it retains an exigency for a visual part, which does not happen in the mole.

73. Finally, the difference between informative and continuative union does not consist in binding essential parts. For if the soul of a horse is homogeneous, the union of an ocular part with its matter is not essential to the horse. But, you say, it is essential to the eye. Let that be so; but continuity of its particles is equally essential to the eye. The difference therefore consists in this: informative union requires penetration of the parts, continuative union local immediacy; likewise, the former always binds dissimilar parts, whereas the latter by its genus is indifferent to binding either similar or dissimilar parts.

74. *Objection 3:* when a lioness generates offspring, only the part of the soul which in the womb is contiguous with the fetus produces the soul of the fetus, for the other parts are locally distant. Therefore that part contains the whole essential perfection of the young lion's soul; and this cannot be true unless all the parts are homogeneous. *Confirmation 1:* from our opinion it follows contrary to experience that blind parents cannot generate a sighted horse, since they do not contain the perfection of the ocular soul. *Confirmation 2:* heterogeneity must likewise be posited in the soul of a plant; hence neither a branch will be able to produce fruit nor straw grain, lest it produce an effect more perfect than itself. There is added that a planted branch puts forth roots and grows into a tree; therefore it contains within itself the whole perfection of the tree's soul. *I answer:* first, the objection collapses if it is denied with the common opinion that the soul of the lioness actively influences the soul of the fetus, and only the active influence of the paternal seed is admitted, whose imperfection is supplied by the influence of the First Cause, as has been said more than once elsewhere.

75. Next, admitting the active influx of the maternal soul, *I deny the antecedent,* which must be denied by all. For if the other parts are excluded by reason of distance, only the internal surface of the womb contiguous with the fetus can influence, and thus it will produce an effect more perfect than itself, at least extensively, which is repugnant. Therefore all the parts of the mother′s soul concur through the same action toward all the parts of the soul to be generated; because although several are distant from the offspring, all are nevertheless continuatively united and together constitute one adequate agent, just as the parts of fire, when they concur after the manner of one, both nearer and more remote, toward heating a hand or a pot. It is enough that the adequate agent touch the patient through some part of itself in order that the other parts act simultaneously through a transitive action, even without acting through a medium, as was shown in the Physics. It must nevertheless be noted that the less perfect parts of the mother concur as instrumental causes toward the more perfect parts of the offspring, but toward the others as causes partly univocal and partly equivocal principal causes. For example, the ocular part of the maternal soul, insofar as it effects an imaginative part in the fetus, is an instrumental cause; insofar as it effects the ocular part it is a univocal cause; and insofar as it effects a purely fleshy part it is an equivocal principal or eminent cause. Something similar occurs in heterogeneous degrees of active quality, and also in the heat of fire, which according to the Thomists by the same action produces substantial fire and another heat in the subject, in relation to which latter it is a univocal cause, although it is only an instrumental power in relation to the substance.

76. *It may be said:* therefore the imaginative part virtually contains the visual part and conversely; therefore it will be able still better to contain the operation of seeing, which is less perfect than the substance of the visual part. *I deny the second consequence:* for not whatever virtually and equivocally contains an equivocal cause productive of effect A thereby immediately contains the effect itself so as to be able essentially and immediately to produce it. A temperament of primary qualities produces color; color produces a visual species; the visual species produces vision. Yet neither can the temperament essentially and immediately produce the species, nor color the vision. Nor does it matter that effect A is less perfect than its immediate cause. For the species too is less perfect than color, and many operations are less perfect than the soul; yet the soul produces the soul of a horse, and the lioness the soul of a leopard, although it cannot produce their operations.

77. *It may again be said:* therefore one may likewise say that all the parts of the soul concur by a common action toward every vital act, for example toward the act of seeing, although it is produced in only one part of the body.

Therefore no part of the soul will have its visual power entirely idle even though all are held homogeneous. *I deny the consequence,* whatever P. Oviedo may say, controv. 3, *De anima*, punct. 1, n. 7. For the soul of the foot would concur toward the vision of the eye because it is of itself visual, or capable of seeing if placed in a disposed organ. But visual power as such is not productive of vision except in itself and for itself; nor can it be called indifferent to producing vision either in itself or in another, unless perhaps after the manner of an object. Yet in this mode it would act not as visual but as visible; for it would be absurd to say that an object exercises visual power when it concurs toward vision either by itself or through a species. The reason is that a power essentially operating immanently, such as the visual power, cannot be indifferent to producing a vital act either immanently or transitively. But production of vision in the eye would be a transitive action in relation to the soul of the foot; otherwise there would be an immanent action locally distant from that in which it inheres, which is unheard of. Moreover, even if this concurrence is admitted, the common proof of our opinion is not thereby weakened. For it is certain that the soul of the foot does not itself see, nor is it immediately perfected in itself by the vision of the eye; therefore it never exercises the power of seeing and of immediately perfecting itself by an act of vision. Hence, if it possesses that power, it will perpetually be violent in the foot.

78. *To Confirmation 1 I deny the consequence:* because, although the parent horses are blind, the ocular part of the fetus′s soul is virtually and equivocally contained in other parts of the generating soul, especially in the imaginative part, which contains the visual part eminently and does not expend all its power in producing the imaginative part of the fetus, since it is greater in bulk. *It may be said:* therefore the imaginative part of the mother will also be able to restore its lost eyes to itself. But this presses the opponents even more, as anyone can see; it must also be resolved in a blind man. Therefore all must admit that ocular organization, although it can be increased by nutritive power, nevertheless cannot be produced anew except by generative power as such, which is not exercised upon one′s own *suppositum*. Hence once lost it is not repaired except by miracle. As for the common saying that bear cubs are born blind and afterward receive sight from the licking of the mother′s tongue, it is true only insofar as bear cubs have their eyes covered by much fluid or even overlaid by a fleshy membrane until, by the mother′s constant licking, either the fluid is wiped away or the membrane is dissolved.

79. *To Confirmation 2:* we admit heterogeneity in the soul of a plant, because its parts, although they have no vital operation other than

vegetation, nevertheless root very diverse accidents in distinct parts of matter. Nor does it therefore follow that a branch or straw produces an effect more perfect than itself, at least as a whole power. First, it can be denied that fruit is physically more perfect than the whole tree, or grain than the whole straw together with the roots, although in relation to human uses it is considered more precious, as one thing may be considered more precious than another. Next, it can be said that the soul of the fruit or grain is principally produced by universal causes, while the soul of the plant or straw prepares the matter and even concurs instrumentally; and all must say this in the production of a tree from seed. The same we say of a planted branch which puts forth roots and sprouts, assisted by universal causes and by the seminal power which it contains in the pith.

80. *Objection 4:* the ocular part of the equine soul is of itself indifferent to being or not being under dispositions suitable for seeing; therefore it does not determinately require those dispositions. *The antecedent is proved:* because when the eyes are not torn out but are rendered unfit for seeing either by an influx of fluid or by an externally induced injury, the same part of the soul still remains there, indeed sometimes even after accidents of flesh are superinduced. This *objection* must equally be resolved by the opponents, for as they themselves teach, the ocular part of the soul determinately requires dispositions for seeing on the supposition that no other part of the same *suppositum* is destined for the organ of sight. Therefore, when the eyes are injured, either that part remains the same or it does not; whatever is said will be said on my behalf. Thus, when ocular organization, although rendered unfit for seeing, is not utterly destroyed, the same part of the soul indeed remains, but suffering violence from defect of the disposition due to it, as does the rational soul in a fool and the form of water in hot matter. But if the ocular organization wholly fails and a fleshy swelling succeeds in its place, then the former part of the soul does not remain, but a new one of the fleshy species is induced, which can be produced by the other parts of the soul since it requires dispositions less elaborate and easily prepared.

81. *Objection 5,* the authority of St. Thomas, *Summa Theologiae* I, q. 76, a. 5, ad 3, where he teaches that the parts of an animal, such as the eye, hand, flesh, bone, etc., "cannot properly speaking be said to be of diverse species, but rather of diverse dispositions." *I answer:* St. Thomas can first be understood of the parts of the human body alone, concerning which alone the third argument to which he replies is speaking. Next, the reason he adduces is "that the parts of an animal are not in a species, but the whole is." This reason manifestly proves that parts of this kind are not properly called

several species, whether similar or diverse, and consequently applies equally to homogeneous and heterogeneous parts. St. Thomas therefore intends only that the name "species" not properly be attributed to a part but to the whole, because a hand, for example, is not so much a species as a part of a species; and this also applies to matter or form of a composite considered separately. Yet this does not prevent the parts of a divisible soul from being called species with the addition "incomplete" or "partial."

COROLLARY.
On the Heterogeneity of the Human Union.

82. That the union of the rational soul with the body is divisible, or composed of continuous parts, seems certain, at least in a man who has already been nourished. For when a man nourishes himself, a new union of the soul with new matter is acquired. This union presupposes in the same instant the union of the soul with the matter previously possessed, for it presupposes man constituted in the being of man, because it is the man who nourishes himself. Therefore each union coexists in the man and consequently must be continued, lest otherwise one man consist of disconnected unions; or at least the whole human union will no longer be simple. Moreover, if the human union were simple, the whole would perish whenever any particle of matter failed, for example when a nail or particle of flesh is cut off, or when the matter of the body is gradually dissolved into vapors. Therefore the total union in man would be changed as often as any subtraction or dissolution of matter occurs, that is, at almost every moment; which is incredible.

83. There is nevertheless a doubt whether the parts of the human union are heterogeneous, so that the part existing in the eye differs by incomplete species from that existing in the ear, and so with the others. Many deny this, even while admitting heterogeneity in the parts of a divisible soul. 1º Because diversity of accidents and operations of eye and ear is not because of the union but because of the soul, which alone is the principle of acting and the root of the accidents of the composite; therefore no diversity of union is inferred from it. 2º Because if the human soul can essentially and immediately require variety of unions, why can it not likewise require variety of accidents in eye and ear? 3º Because the extremes of human union are everywhere similar, namely soul and the substance of matter; but union is specified only by its extremes. 4º Because the location of the soul is of the same species in eye and ear; therefore so is the union. 5º Because if by divine

power the dispositions of the eye were transferred to the matter of the ear, the soul would see where it now hears even if the union remained the same.

84. Others, however, defend the affirmative side, whose opinion the Excellent Doctor praises and promotes, I *De anima*, c. 2, n. 23, and at n. 24 confirms by the authority of St. Thomas. It likewise seems more consonant with the doctrine hitherto delivered and can be proved by almost the same reasons which we gave above for heterogeneity of the parts of the soul. For 1º the total human union essentially and naturally requires an organization of the body simply human, as the opponents grant and cannot deny unless it is absurdly said that this union can of itself exist naturally in a stony body. Therefore, if its parts are homogeneous, any one of them will naturally require all the organs of the human body, for given homogeneity the exigency of whole and part is the same. Therefore the union of the foot will require the organization of the head, and since it must perpetually lack it, it will suffer perpetual violence; which is absurd. A recourse to an indeterminate exigency for itself or another can be rejected from what was said above, especially because in the total union there will already be an intrinsic exigency which does not belong to the individual parts, namely a determinate exigency that all the organs simultaneously be conferred upon itself. 2º Because, given homogeneity, the essence of human union would be preserved in any particle. But that it is not preserved in a particle of the natural minimum, much less in a point of union, is evident for the same reason by which we showed this in a particle or point of a divisible soul; for just as every soul is essentially the "act of an organic body," so human union is essentially the "actuation of a human organic body."

85. Nor do the contrary arguments stand. Not 1º, because diversity of accidents, although primarily and principally because of the soul, is also secondarily and less principally because of the union. The opponents do not deny that the accidents of the human body, at least those necessary for the conservation of life, are due to the union and consequently are in some manner because of it. But if those, why not all? The soul alone indeed is the principle of acting and root of the accidents; nevertheless the union is a substantial condition for exercising these functions, essentially requiring that it constitute the soul in the state of rooting accidents and operating through the organs of the body. Not 2º, because we do not rely upon the claim that the soul cannot essentially and immediately require variety of accidents, but upon the fact that this variety must simultaneously be required by the union by reason of diverse parts.

86. Not 3º, because although the extremes of the union are everywhere similar, the terminus of the natural exigency, namely the disposition of

matter, is not everywhere similar; and the nature of the union can also be specified or diversified by this terminus. For it does not seem doubtful that human union differs from equine union, not only by an order to a diverse soul but also by its need for a diverse disposition in the body. Moreover, it can be said that the rational soul, although really simple, is equivalently or eminently a manifold partial and heterogeneous soul, insofar as it eminently contains the perfection of a divisible soul composed of heterogeneous parts. Therefore, if it is considered insofar as informing the foot, for example, it differs in a formally precisive sense from itself insofar as informing the head. Hence by reason of this diversity, which it requires to unfold in diverse parts of the body, it can specify diverse unions.

87. Not 4º, because in the location of the soul, even if it is held divisible, the reason drawn from the exigency of the accidents of the body and from the concept of actuation of an organic body does not apply, since the soul can, when separated from the body, retain the same location. Not 5º, because it may be said either that in that hypothesis, because of the defect of a naturally necessary condition, the soul would not naturally see there; or that the soul would indeed see, but the union would suffer violence from denial of the disposition due to it, and indeed the soul itself from denial of a diverse union corresponding to the new accidents.

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